Highways

Growth of Highway Mileage and Rural Highway Expenditures—1904-1925

Total Mileage		Surfaced Road Mileage		Rural Highway Expenditures	
1904	2,151,379	1904	153,500	1904	$ 59,527,170
1909	2,199,645	1909	190,000	1909	240,263,784
1914	2,445,761	1914	257,300	1914	911,589,895
1921	2,941,294	1921	387,700	1921	898,352,307
1925	2,994,828	1925	521,923	1925	1,288,939,707

Total Mileage and Mileage of Surfaced Roads Outside of Towns and Cities

	Total Mileage Jan. 1, 1926	Miles of Surfaced Road—Jan. 1, 1926	Miles Surfaced During 1925		Total Mileage Jan. 1, 1926	Miles of Surfaced Road—Jan. 1, 1926	Miles Surfaced During 1925		Total Mileage Jan. 1, 1926	Miles of Surfaced Road—Jan. 1, 1926	Miles Surfaced During 1925
Alabama	61,540	13,561	397	Maryland	14,868	4,689	335	Oregon	49,752	10,755	788
Arizona	22,582	3,192	130	Massachusetts	19,083	7,888	219	Pennsylvania	92,759	18,958	1,700
Arkansas	74,865	6,500	686	Michigan	77,284	21,514	1,003	Rhode Island	2,374	777	86
California	79,197	18,002	836	Minnesota	108,081	24,385	2,456	South Carolina	64,634	10,061	970
Colorado	67,839	8,600	418	Mississippi	56,108	9,910	898	South Dakota	116,906	3,007	881
Connecticut	13,346	2,610	125	Missouri	110,500	10,658	2,845	Tennessee	65,321	13,325	785
Delaware	3,796	782	84	Montana	60,177	1,189	259	Texas	167,685	20,115	1,385
Florida	30,263	9,844	1,033	Nebraska	87,169	2,501	1,144	Utah	23,381	3,132	181
Georgia	97,893	18,711	501	Nevada	23,171	1,252	261	Vermont	14,874	4,680	274
Idaho	35,402	12,116	654	New Hampshire	13,802	1,894	150	Virginia	59,080	9,782	753
Illinois	96,327	15,259	1,104	New Jersey	17,722	7,609	489	Washington	49,016	17,271	809
Indiana	73,131	48,125	1,010	New Mexico	48,295	2,441	173	West Virginia	35,243	1,628	402
Iowa	102,921	5,986	992	New York	81,873	26,363	2,067	Wisconsin	78,965	28,318	6,058
Kansas	127,964	3,195	478	North Carolina	68,148	20,017	1,704	Wyoming	46,576	907	117
Kentucky	68,704	17,231	467	North Dakota	106,498	1,785	593				
Louisiana	39,803	5,184	509	Ohio	84,883	40,249	2,066				
Maine	20,765	4,279	326	Oklahoma	134,262	1,686	305	Total	2,994,828	521,923	41,906

Road Mileage, Road Income and Other Related Data for United States in 1925, 1921, 1914, 1909 and 1904

	1904	1909	1914	1921	1925
Total Road Mileage	2,151,379	2,199,645	2,445,761	2,941,294	2,994,828
Surfaced Mileage	153,530	190,476	257,291	387,760	521,923
Percentage Surfaced	7.1	8.7	10.5	13.2	17.4
Total Income for all Rural Road Purposes	$79,623,617	*	240,263,784	1,149,437,896	1,358,508,009
State and Local Road and Bridge Bonds Outstanding at End of Year	*	*	344,763,082	1,222,312,300	259,190,271
Land Area (Square Miles)	2,974,099	2,973,830	2,973,830	2,973,830	2,973,830
Population	[1]75,715,857	[2]91,641,197	[2]91,641,197	[3]105,273,049	[4]113,110,000
Rural Population	[1]45,197,390	[2]49,348,883	[2]49,348,883	[3]51,406,017	[3]51,406,017
Miles of Road per Square Mile of Area	0.72	0.74	0.82	0.99	1.005
Miles of Road per 1000 of Rural Population	47.6	44.6	49.5	57.2	58.3
Surfaced Mileage per Square Mile of Area	0.052	0.064	0.086	0.130	0.175
Surfaced Mileage per 1000 of Rural Population	3.39	3.86	5.21	7.54	10.2
Road and Bridge Income per Mile of Road	$37.01	*	$98.22	$390.79	$453.62
Road and Bridge Income per Square Mile of Area	$26.77	*	$80.79	$386.52	$456.82
Road and Bridge Income per Capita	$1.05	*	$2.62	$10.92	$12.01

*—No data available. [1]—1900 Census. [2]—1910 Census. [3]—1920 Census. [4]—1925 Census Estimate.

American Stock

MAKE AND MODEL	Designed For	Number of Cylinders, Bore and Stroke (Ins.)	Rated H.P. (N.A.C.C.)	R.P.M. at Maximum Brake H.P.	Piston Displacement (Cu. Ins.)	Compression Ratio	Number of Point Suspension	CYLINDERS: Head	CYLINDERS: No. Cast in One Piece	CRANKCASE: Upper Half: Integral with Cylinders?	CRANKCASE: Upper Half: Material	CRANKCASE: Material (Lower Half)	VALVES: Arrangement	VALVES: Head Material	VALVES: Clear Diameter (Ins.)	VALVES: Lift (Ins.)	FRONT END DRIVE: Type	FRONT END DRIVE: Non-Metallic Gear Used On?	PISTONS: Material	PISTONS: Length (Ins.)	PISTONS: Weight (with Pins, Rings & Bushings) Ozs.	PISTONS: Piston Pins: Diameter and Length (Ins.)	PISTONS: Piston Pins: Pin Bearing In	Number of Rings per Piston
Automatic J5½	T. & Tr.	4-5½x7	48.40	48-800	665.2	4.0	4	Int.	1	Sep.	Iron	Iron	L	Car.	2.25	.44	Spur	None	CI	7.00	100.0	1.43x4.62	Rod	4
Automatic M	T. & Tr.	4-6½x8	67.10	62-675	1061.7	4.0	4	Det.	1	Sep.	Iron	Iron	L	Car.	2.50	.56	Spur	None	CI	9.00	356.0	1.68x1.12	Rod	4
Automatic N	T & Tr.	4-7½x9	89.80	75-540	1588.0	4.0	4	Det.	1	Sep.	Iron	Iron	L	Car.	3.00	.56	Spur	None	CI	10.50	548.0	2.00x7.12	Rod	4
Automatic R	T & Tr.	4-8½x10	111.50	100-500	2288.0	4.0	4	Det.	1	Sep.	Iron	Iron	L	Car.	3.25	.68	Spur	None	CI	12.31	752.0	2.43x8.00	Rod	4
Beaver JD, JC	Tractors	6&4-4¾x6	54.15	76°-1000	637.9°	4.5	3, 4	Det.	2	Sep.	Iron	Iron	I	Tun.	2.00	.37	Heli	None	CI	5.31	92.0	1.50x4.50	Pist.	4
Beaver JB	Tractors	4-4¾x6	36.10	46-1200	425.3	....	3, 4	Det.	4	Sep.	Iron	Iron	I	Tun.	2.00	.37	Heli	None	CI	5.31	134.0	1.50x4.25	Pist.	4
Beaver JA	Trucks	4-4½x6	32.40	41-1100	381.7	4.5	3, 4	Det.	4	Sep.	Iron	Iron	I	Tun.	2.00	.37	Heli	None	CI	5.31	118.0	1.50x4.25	Pist.	4
Beaver RA, RD	Tractors	4&6-5¾x7	52.90°	83°-1000	727.0°	4.5	4	Det.	2	Sep.	Iron	Iron	I	Tun.	2.56	.37	Heli	None	CI	6.25	112.0	1.50x5.25	Pist.	4
Beaver RE, RB	Tractors	6&4-6 x7	86.50°	.....	.....	4.5	4	Det.	2	Sep.	Iron	Iron	I	Tun.	2.55	.37	Heli	None	CI	6.56	120.0	1.50x5.25	Pist.	4
Beaver RX, RY	Tractors	4&6-6½x	67.60°	115-1100	928 5°	4.	4	Det.	2	Sep.	Iron	Iron	I	Tun.	2.50	.37	Heli	None	CI	7.50	246.	1.75x6	Pist.	4
Buda GL6	T, Buses	6-4½x6	48.60	108-2200	572.5	4.25	3	Det.	6	Sep.	Al	Al	L	Sil.	2.50†	.31†	Heli	None	CI	6.25	108.0	1.25x3.75	Flo	4
Buda LV-6	Cars	6-3¼x4½	25.25	.....	224.0	4.2	3	Det.	6	Sep.	Iron	Iron	L	Sil.	1.62†		Heli		CI	.....	.....	.....	.....	4
Buda WTU	Trucks	4-3¾x5½	22.50	37-1850	226.4	4.1	3	Det.	4	Sep.	SS	Iron	L	ASt.	.....	.28†	Heli	Accx	SS	4.50	55.2	1.06x3.25	Rod	4
Buda KBUI	Buses & T	4-4 x5¼	25.60	43-1800	263.9	....	3	Det.	4	Sep.	Al	Al	L	ASt.	1.62	.31†	Heli	Accx	SS	5.00	62.5	1.06x3.44	Rod	4
Buda KTU	Trucks	4-4 x5¼	25.60	43-1800	263.9	4.1	3	Det.	4	Sep.	SS	Iron	L	ASt.	1.62	.28†	Heli	Accx	SS	5.00	71.5	1.06x3.44	Rod	4
Buda EBUI	Buses & T	4-4¼x5½	28.90	48-1850	312.0	4.1	3	Det.	4	Sep.	Al	Al	L	ASt.	1.87	.31†	Heli	Accx	SS	5.37	73.0	1.12x3.69	Rod	4
Buda ETU	Trucks	4-4¼x5½	28.90	37-1550	312.0	3.8	3	Det.	4	Sep.	SS	Iron	L	ASt.	1.87	.28†	Heli	Accx	SS	5.37	95.5	1.12x3.68	Rod	4
Buda YBUI	Buses & T	4-4½x6	32.40	60-1700	381.7	4.2	3	Det.	4	Sep.	Al	Al	L	ASt.	2.12	.31†	Heli	Accx	SS	6.25	95.5	1.25x3.87	Rod	4
Buda YTU	Trucks	4-4½x6	32.40	50-1400	381.7	4.0	3	Det.	4	Sep.	SS	Iron	L	ASt.	2.12	.28†	Heli	Accx	SS	6.25	120.5	1.25x3.87	Rod	4
Buda BTU	Trucks	4-5 x6½	40.00	53-1250	510.5	3.8	3	Det.	4	Sep.	SS	Iron	L	ASt.	2.25	.31†	Heli	Accx	SS	6.75	145.2	1.37x4.37	Rod	4
Buda BUS	Buses & T	6-4 x5½	38.40	78-2250	386.4	4.1	3	Det.	6	Sep.	Al	Al	L	ASt.	1.87†	.31†	Heli	None	CI	5.00	56.0	1.12x3.44	Rod	4
Buda HS6	Cars, T & B	6-3⅝x4½	27.33	52-2200	241.6	4.61	3	Det.	6	Sep.	Iron	Al	L	Sil.	1.37	.31	eHeli	None	CI	3.87	46.0	1.12x2.62	Flo	4
Buda DS6	Cars	6-3⅝x5	31.50	60-2200	309.6	4.47	3	Det.	6	Sep.	Iron	Al	L	Sil.	1.62	.31	eHeli	None	CI	4.37	.....	1.37x2.87	Flo	4
Buffalo BA	T & Tr	4-3½x5	19.60	32-1300	192.4	3.5	3	Det.	4	Int.	Iron	PS	L	CI	1.75	.31†	Heli	None	CI	3.75	43.0	1.09x3.25	Rod	4
Buffalo RT	T & Tr	4-5 x6	40.00	62-1400	471.2	3.7	4	Int.	2	Sep.	Iron	Iron	L	Car.	2.25	.31†	Heli	None	CI	6.19	118.0	1.23x4.62	Pist.	3
Buffalo CM	Tractors	4-5½x7	48.40	75-1200	665.2	3.7	4	Int.	2	Sep.	Iron	Iron	L	Car.	2.25	.31†	Heli	None	CI	6.00	190.0	1.37x5.00	Pist.	3
Buffalo CE	Tractors	4-6¾x9	72.90	100-1000	1252.0	3.7	4	Int.	2	Sep.	Iron	Iron	L	Car.	2.87	.44†	Heli	None	CI	7.69	274.0	1.62x6.25	Pist.	3
Climax RBU	T & Tr	6-5½x7	72.5	125-1200	997.5	4.34	4	Det.	2	Sep.	Iron	Iron	L	CI	2.50	.37	Heli		CI	6.94	162	1.48x4.87	Flo	3
Climax R4U, R6U	Rail C & Tr	4&6-6 x7	57.60°	95-1200°	791.6°	4.42	4	Det.	2	Sep.	Iron	Iron	L	Sil.	2.50	.37	Heli	None	CI	6.94	220	1.48x5.37	Pist.	4
Climax K, KU, KL	T & Tr	4-5 x6½	40.00	57-1200	510.5	4.2	3, 4	Det.	2	Sep.	Iron	Iron	L	CI	2.25	.31†	Heli	None	CI	5.75	132.0	1.36x4.75	Rod	3
Climax T & TU	T & Tr	4-5½x7	48.40	81-1200	665.2	4.3	4	Det.	2	Sep.	Iron	Iron	L	CI	2.25	.31	Spur	None	CI	7.00	165.0	1.50x5.19	Rod	3
Continental 8R	Cars	6-3⅝x4½	27.34	.....	241.6	4.2	3	Det.	6	Sep.	Al	PS	L	ChN	1.50	.31	Heli	Idler	CI	4.06	35.8	.86x2.84	Rod	3
Continental H7	T, Tr, In	4-3½x4¼	15.63	.....	130.4	4.2	3	Det.	4	Int.	Iron	PS	L	Sil.	1.50	.31	Heli	None	CI	3.25	29.7	.75x2.72	Pist.	3
Continental L5	Trucks	4-4¼x5½	28.90	.....	312.0	3.4	3	Det.	2	Sep.	Al	Al	L	Sil.	2.00	.31	Heli	None	CI	6.25	92	1.37x3.75	Rod	4
Continental B7	Trucks	4-5 x6	40.00	.....	471.2	3.4	3	Det.	2	Sep.	Al	Al	L	Sil.	2.12	.31	Heli	None	CI	5.91	104.5	1.50x4.49	Rod	4
Continental 14H	Buses	6-4½x5¾	48.60	.....	548.6	4.14	3	Det.	6	Sep.	Al	Al	L	Sil.	2.12†	.37	Heli	None	CI	5.94	97.0	1.50x3.72	Rod	4
Continental 6J	Cars	6-3¾x5	33.75	.....	331.3	4.3	3	Det.	6	Sep.	Al	PS	L	ChN	1.81	.31	Heli	Idler	CI	4.50	51.4	1.12x3.25	Rod	3
Continental 6B	T & Buses	6-3¾x5	33.75	.....	331.4	4.1	3	Det.	6	Sep.	Al	PS	L	Sil.	1.81	.31	Heli	None	CI	4.50	51.4	1.12x3.25	Rod	3
Continental S4	Trucks	4-4¼x4½	28.90	.....	255.3	3.77	3	Det.	4	Int.	Iron	PS	L	Sil.	1.87	.31	Heli	None	CI	4.75	74.2	1.50x3.50	Flo	3
Continental J4	T, B, Tr	4-3¾x5	22.50	.....	220.9	3.7	3	Det.	4	Sep.	Al	Al	L	Sil.	1.62	.31	Heli	None	CI	4.87	58.0	1.12x3.31	Rod	4
Continental K4	T, B, Tr	4-4⅛x5¼	27.23	.....	280.6	3.6	3	Det.	4	Sep.	Al	Al	L	Sil.	1.87	.31	Heli	None	CI	5.44	78.2	1.25x3.62	Rod	4
Continental L4	T, B, Tr	4-4½x5½	32.40	.....	349.9	3.4	3	Det.	2	Sep.	Al	Al	L	Sil.	2.00	.31	Heli	None	CI	5.94	92	1.37x3.94	Rod	4
Continental B5	T, B, Tr	4-4¾x6	36.10	.....	425.3	3.4	3	Det.	2	Sep.	Al	Al	L	Sil.	2.12	.31	Heli	None	CI	6.12	102.7	1.50x4.28	Rod	4
Continental H8	T & Tr	4-3⅜x4¼	18.22	.....	152.1	4.2	4	Det.	4	Int.	Iron	PS	L	Sil.	1.50	.31	Chain	None	CI	3.88	35	.86x2.81	Pist.	3
Continental 20L	Cars	6-2¾x4¾	18.15	.....	169.3	4.78	4	Det.	6	Int.	Iron	PS	L	ChN	1.31	.31	Chain	None	CI	3.28	26	.73x2.44	Rod	3
Continental 7T	Buses	6-4½x5¼	40.84	.....	420.9	4.12	3	Det.	6	Sep.	Al	Al	L	Sil.	1.94	.37	Heli	None	CI	4.68	54	1.25x3 59	Rod	3
Continental 11U	Cars	6-3¼x4⅝	25.35	.....	230.2	4.44	3, 4	Det.	6	Int.	Iron	PS	L	Chr	1.50	.31	Chain	None	CI	3.75	28	1.00x2.81	Rod	3
Continental 14T	T & Buses	6-4½x5¼	43.35	.....	446.9	4.12	3	Det.	6	Sep.	Al	Al	L	Sil.	1.94	.37	Heli	None	CI	4.59	67	1.25x3.59	Rod	3
Continental 9K	Cars	8-3⅛x4⅜	28.8	.....	268.6	4.69	4	Det.	8	Sep.	Al	PS	L	Sil.	1.50	.31	Chain	.....	CI	3.75	33.6	.86x2.50	Rod	3
Continental 28L	Cars	6-2⅞x4¾	19.84	.....	185.0	4.78	4	Det.	6	Int.	Iron	PS	L	ChN	1.31	.31	Chain	None	CI	3.28	22	.73x2.44	Flo	3
Cyclone C4, C5, A4, A5	T, B, Tr	4-5° x6	36.10	85-1500	471.2	4.0	3	Det.	4	Int.	SS	Iron*	I	Sil.	2.31	.33	Heli	Opt	Mag*	6.12	104.0	1.37x4.44	Rod	3
Erd C6	T, B, Tr	6-4¾x6	43.35	58-1000	510.7	4.8	3	Det.	4	Sep.	Iron	Al	I	CI	2.00	.41	Heli	None	CI	.....	.....	1.37x3.94	Rod	3
Erd S4	Cars	4-3⅜x5	18.23	.....	222.0	4.0	3	Det.	4	Int.	Iron	Al	L	CI	1.62	.31	Heli	None	CI	4.12	26.0	.87x	Rod	3
Erd S4E	T & B	4-3½x5	19.60	46-2100	192.0	4.54	3	Det.	4	Int.	Iron	PS	L	CI	.....	.....	Heli	None	CI	4.00	36.	.87x3.37	Rod	3
Erd S4I	C & T	4-3⅜x5	18.23	42½-2100	179.0	4.35	3	Det.	4	Int.	Iron	PS	L	CI	.....	.....	Heli	None	CI	4.00	33.	.87x3.25	Rod	3
EWC GF	T, Tr & B	4-4¾x6	36.10	55-1200	425.3	....	4	Det.	1	Sep.	Iron	Iron	L	CI	1.87	.38†	Heli	None	CI	5.87	110.4	1.00x4.25	Rod	3
EWC CF	T, Tr & B	4-5 x6	40.00	61-1400	471.0	....	4	Det.	1	Sep.	Iron	Iron	L	CI	2.00	.38†	Heli	None	CI	6.25	111.2	1.25x4.62	Rod	4
EWC A	T, Tr & B	4-5¼x6	44.10	67-1400	519.4	....	4	Det.	1	Sep.	Iron	Iron	L	Sil.	2.00	.38†	Heli	None	CI	6.25	112.0	1.25x4.87	Rod	3
EWC DA	T Tr & B	4-5½x7	48.40	76-1400	665.2	....	4	Det.	1	Sep.	Iron	Iron	L	Sile	2.25	.50†	Heli	None	CI	7.00	175.5	1.44x5.06	Rod	3
‡Falls T8000	Cars	6-3⅛x4¼	23.44	46-2750	195.6	4.6	3	Det.	6	Int.	Iron	PS	I	Sil.	1.37	.28†	Heli	Cam	CI	3.50	28.0	.75x2.87	Pist.	4
Hall-Scott 101	Buses	4-4¼x5½	28.9	56-1800	312	5.09	4	Det.	4	Sep.	Al	Al	I	Sil.	2.25	.31	Chain	None	Al	4.50	53	1.25x3.72	Flo	6
Hall Scott 111-1	Buses	6-4¼x5½	43.3	76-1800	468	4.74	3, 4	Det.	6	Sep.	Al	Al	Io	Sil.	2.25	.31	C&H	.....	Al	4.56	52	1.25x3.72	Flo	6
Hercules K	T, Tr	4-4¼x5¾	28.9	52-1600	326.3	3.89	3	Det.	4	Int.	Iron	PS	L	Sil.	2.00	.33	Heli	None	CI	5.25	79.25	1.50x3.75	Pist.	4
Hercules TXO	T, Tr	4-6⅜x7	65.	103-1000	893.7	3.89	3	Det.	4	Int.	Iron	Al	L	Sil.	2.50	.37	Heli	.....	CI	7.00	.....	1.88x5.87	Pist.	4
Hercules O & O X, OBX	T, B, Tr	4-4 x5	25.60	43-2000	251.3	4.0	3	Det.	4	Int.	Iron	PS	L	Sil.	1.62	.33	Heli	None	CI°	4.87	64.4	1.37x3.50	Pist.	3
Hercules L	T, B, Tr	4-4½x5¾	32.40	60-1800	365.8	4.0	3	Det.	4	Int.	Iron	PS	L	Sil.	2.00	.33	Heli	None	CI	5.25	88.2	1.50x4.00	Pist.	4
Hercules G	T, B, Tr	4-4¾x5¾	36.10	64-1800	407.6	4.0	3	Det.	4	Int.	Iron	PS	L	Sil.	2.00	.33	Heli	None	CI	5.25	94.7	1.50x4.25	Pist.	4
Hercules "TX"	T, Tr, Rail C	4-5½x7	48.40	76-1000	665.0	3.9	3, 4	Det.	4	Int.	Iron	Al	L	Sil.	2.50	.37	Heli	.....	CI	7.00	194	1.88x4.88	Pist.	4
Hercules "TXA"	T, Tr, Rail C	4-6 x7	57.60	91-1000	792.0	3.9	3, 4	Det.	4	Int.	Iron	Al	L	Sil.	2.50	.37	Heli	.....	CI	7.00	210	1.88x5.37	Pist.	4
Hinkley 300	T, B, Tr	4-3¾x5¼	22.50	37-1700	231.9	3.9	3	Det.	4	Sep.	SS	PS	L	CI	1.75	.31	Heli	None	CI	4.75	60.0	1.12x1.75	Rod	3
Hinkley 400	T, B, Tr	4-4 x5¼	25.60	44-1780	263.9	3.9	3	Det.	4	Sep.	SS	PS	L	CI	1.75	.31	Heli	None	CI	4.50	60.0	1.12x1.75	Rod	3
Hinkley 500	T, B, Tr	4-4¼x5½	28.90	48-1780	312.0	3.9	3	Det.	4	Sep.	SS	Al	L	CI	2.00	.31	Heli	None	CI	5.25	81.0	1.25x1.87	Rod	3
Hinkley 200	T, B, Tr	4-4½x5½	32.40	54-1600	349.9	3.9	3	Det.	4	Sep.	SS	Al	L	CI	2.00	.31	Heli	None	CI	5.25	92.0	1.25x1.87	Rod	3
Hinkley 2100	B, T, Tr	4-4¾x6	36.10	55-1400	425.3	3.6	3	Det.	2	Sep.	Al	Al	L	Sil†	2.12	.31	Heli	None	CI	6.12	105	1.37x2.25	Rod	3
Hinkley 1900	T, Tr	4-5½x6	48.40	87-1400	570.2	4.4	3	Det.	2	Sep.	Al	Al	I	Sil†	2.50	.31	Heli	None	CI	6.12	168	1.75x2.25	Rod	3
Jackson J	T, Tr	4-4¼x6⅝	28.90	35-1200	369.7	3.8	3	Det.	2	Sep.	Iron	Al	L	Sil.	1.87	.31	Heli	None	CI	5.00	73.0	1.12x3.75	Rod	3
Jackson J-A	Trucks	4-4¼x6⅝	28.90	35-1200	360.0	3.5	3	Det.	2	Sep.	SS	Al	L	.....	1.87	.31	Heli	None	CI	6.00	.....	1.13x4.00	Rod	3
John Deere D	Tractors	2-6½x7	33.8	...-800	464	3.9	3	Det.	2	Sep.	Iron	Iron	I	Sil.	2.31	.47	Heli	None	CI	8.50	154	1.75x6.12	Rod	5
Le Roi K	Cars, T, Tr	4-2¾x4	12.1	16-2200	95	4.0	3, 4	Det.	4	Int.	Iron	Iron	L	CI	1.50	.19	Heli	.....	CI	3.50	15	.75x	Rod	3
LeRoi 2C	C, T, Tr	4-3⅛x4½	15.63	25-2200	138.1	4.4	3	Det.	4	Int.	Iron	Iron	L	CI	1.50	.19	Heli	None	CI	3.50	28.0	.75x2.87	Fol	3
LeRoi MR & M	Tractors	2-3⅛x4½	7.80	10-1750	69.0	4.4	3, 4	Det.	2	Int.	Iron	Iron	L	CI	1.50	.19	Heli	None	CI	3.50	28.0	.75x2.87	Flo	3
Light H	C, T, Tr	4-3¼x4½	16.90	29-2350	149.3	3.9	3	Det.	4	Int.	Iron	Iron	L	CI	1.19	.36	Heli	None	CI	4.00	30.0	.75x3.00	Rod	3
Lycoming CH	C, T, Tr	4-3½x5	19.60	40-2250	192.4	4.1	3	Det.	4	Sep.	Iron	PS	L	CI	1.62	.34	Heli	Cran	Al*	4.12	24.0	1.12x2.90	Pist.	4
Lycoming CF	C, T, Tr	4-3⅝x5	21.03	42-2200	206.4	4.1	3	Det.	4	Sep.	Iron	PS	L	CI	1.62	.34	Heli	Cran	Al*	4.12	26.0	1.12x2.90	Pist.	4
Lycoming CT	C, T, Tr	4-3¾x5	22.50	44-2150	220.9	4.1	3	Det.	4	Sep.	Iron	PS	L	CI	1.62	.34	Heli	Cran	CI	4.12	42.0	1.12x3.31	Pist.	4
Lycoming C4	Trucks	4-4 x5	25.60	43-2000	251.3	4.0	3	Det.	4	Sep.	Iron	PS	L	CI	1.62	.31	Heli	Accx	Al*	4.12	30.0	1.12x3.56	Pist.	4
Lycoming 2S	Cars, T & B	6-3⅛x4½	23.44	51-3000	207.1	4.6	3	Det.	6	Sep.	Iron	PS	L	Sil.	1.44	.31	Opt	Idler	CI	3.50	25.0	.87x2.78	Rod	4

ABBREVIATIONS:
Accx—Accessories Drive
Al—Aluminum Alloy.
ASt—Alloy Steel.
B—Buses.
Ball—Ball Bearing
C—Cars.
Car—Carbon Steel.
Cam—Camshaft.
Cent—Centrifugal.
C&H—Chain and Helical Gear.
Cran—Crankshaft.
Ch N—Chrome Nickel Steel.
Chr—Chromium Steel.
CI—Cast Iron
CiSp—Circulating Splash
Det—Detachable.
Dur—Duralumin.
e—Exhaust.
Ecc—Eccentric.
Fl Pr—Full Pressure to all bearings including wrist pins.
Flo—Floating
Heli—Helical.
I—Both valves in head.
Io—Valve in head; overhead camshaft.
Int—Integral.
L—Valves at side. ("L" head).
Mag—Magnesium.

Engines

CONNECTING RODS			CRANKSHAFT							OILING SYSTEM		WATER CIRCULATION		GOVERNOR			MISCELLANEOUS							MAKE AND MODEL
						Crank Pin	Main Bearings												Overall Dimensions (Ins.)					
							Diameter and Length (Ins.)																	
Material	Center to Center Length (Ins.)	Weight (with Bushings and Cap) Ozs.	Material	Offset (Ins.)	Counter Balances Used?	Diameter and Length (Ins.)	Number	Front	Rear	Type of System	Pump Type	Type	Pump Type	Furnished?	Type	Maximum Governed Speed (R.P.M.)	Speed at which Maximum Torque is Developed (R.P.M.)	Weight (without Carbureter or Ignition) Lbs.	Adapted for Use of Kerosene?	Width	Height	Length	Bell Housing Provided? S.A.E. Numbers	
Car...	14.00	144.0	Car...	None...	No...	2.25x2.75	5	2.25x4.75	2.25x4.00	Splash...	Gear..	Pump...	Cent..	Stk...	Cent..	Opt...	800	1650	Yes...	85¾	19½	35½	None..	Automatic.....J5½
Car...	17.00	240.0	Car...	None...	No...	2.75x3.00	5	2.75x6.75	2.75x5.00	Splash...	Gear..	Pump...	Cent..	Stk...	Cent..	Opt...	675	2700	Yes...	26	43	70¼	None..	Automatic.....M
Car...	19.00	496.0	Car...	None...	No...	3.00x3.50	5	3.00x7.00	3.00x6.00	Splash...	Gear..	Pump...	Cent..	Stk...	Cent..	Opt...	560	3750	Yes...	30	48	78¾	None..	Automatic.....N
Car...	21.00	728.0	Car...	None...	No...	3.50x4.25	3	3.50x6.50	3.50x5.12	Splash...	Gear..	Pump...	Cent..	Stk...	Cent..	Opt...	500	4700	Yes...	32	53½	86½	None..	Automatic.....R
Car...	12.50	139.0	Ch N.	.50	No...	2.25x2.75	5	2.37x3.50	2.37x4.50	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	800	1475°	No...	23½	39	65°	1, 2	Beaver.....JD, JC
Car...	12.50	139.0	Ch N.	.50	No...	2.25x2.75	3	2.37x3.50	2.37x4.50	PrCs...	Gear..	Pump...	Cent..	.....	None..	None..	750	1020	Yes...	23½	39	50	2	Beaver.....JB
Car...	12.50	129.0	Ch N.	.50	No...	2.25x2.75	3	2.37x3.50	2.37x4.50	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	700	1000	Yes...	23½	39	50	2, 3	Beaver.....JA
Car...	14.20	282.0	Ch N.	None...	No...	3.00x3.75	3	3.00x3.75	3.00x5.25	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	800	2000	No...	29	45	62°	1	Beaver.....RA, RD
Car...	14.00	282.0	Ch N.	None...	No...	3.00x3.75	3	3.00x3.75	3.00x5.25	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	800	2000	No...	29	45°	81	1	Beaver.....RE, RB
Dur...	14.00	160.0	Ch N.	None...	No...	3.50x3.75	3	3.75x5.25	3.75x5.25	PrCs...	Gear..	Pump...	Cent..	Opt...	.....	1100	1050	2300	°No...	29	44⅞	....	Opt...	Beaver.....RX, RY
ASt...	13.25	138.6	Car...	None...	Yes...	30.3x2.31	4	3.00x2.25	3.00x3.69	FlPr...	Gear..	Pump...	Cent..	Opt...	Opt...	1600	1000	1235	No...	28¾	43	58 1/16	Yes...	Buda.....GL6
ASt...	.....	.....	Car...	.....	.....	.....	4	2.37x1.75	2.37x2.75	FlPr...	Gear..	Pump...	Cent..	Opt...	Cent..	.....	.....	.....	.....	.....	.....	.....	Yes...	Buda.....LV6
ASt...	11.25	57.2	ASt..	None...	No...	1.87x2.00	3	2.12x2.50	2.50x2.94	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1450	1000	660	No...	25¾	32¾	52⅛	3	Buda.....WTU
ASt...	11.25	92.2	ASt..	None...	Yes...	2.00x2.25	3	2.25x2.87	2.50x3.44	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1600	1000	840	No...	25¾	33 1/16	55 1/16	3	Buda.....KBUI
ASt...	11.25	89.0	ASt..	None...	No...	2.00x2.25	3	1.87x2.87	2.12x3.50	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1150	900	782	No...	25¾	32⅝	55⅛	3	Buda.....KTU
ASt...	12.25	120.0	ASt..	None...	Yes...	2.12x2.50	3	2.25x3.09	2.75x3.94	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1400	1200	930	No...	25¾	34⅝	58¼	3	Buda.....EBUI
ASt...	12.25	113.0	ASt..	None...	No...	2.12x2.50	3	2.12x3.09	2.37x4.00	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1100	900	968	No...	25¾	34⅛	58¼	3	Buda.....ETU
ASt...	13.25	148.2	ASt..	None...	Yes...	2.25x3.00	3	2.25x3.94	2.75x4.44	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1250	1100	935	No...	25¾	37⅛	65¼	3	Buda.....YBUI
ASt...	13.25	133.7	ASt..	None...	No...	2.25x3.00	3	2.12x3.50	2.37x4.50	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	1000	850	1060	No...	25¾	37½	65¼	3	Buda.....YTU
ASt...	14.37	163.0	ASt..	None...	No...	2.50x3.12	3	2.25x4.12	2.62x4.75	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	725	1410	No...	28¾	41⅜	70⅝	1	Buda.....BTU
ASt...	11.25	94.0	ASt..	None...	Yes...	2.50x2.12	4	2.50x2.12	2.50x3.50	PrCs...	Gear..	Pump...	Cent..	Opt...	None..	None..	.....	867	No...	25¾	37¼	52⅝	3	Buda.....BUS
ASt...	9.75	48.0	ASt..	None...	Yes...	2 37x1.75	4	2.37x2.50	2.37x2.75	FlPr...	Gear..	Pump...	Cent..	Opt...	Cent..	1800	900	708	No...	25¾	30	44 1/16	3	Buda.....HS6
ASt...	10.75	.....	ASt..	None...	No...	2.50x1.87	4	2.50x2.44	2.50x2.75	FlPr...	Gear..	Pump...	Cent..	Opt...	Cent..	.....	900	.....	No...	25¾	31	46⅛	3	Buda.....DS6
Car...	10.25	48.0	Car...	None...	No...	1.87x2.12	3	2.18x2.87	2.25x3.00	Splash...	Pist..	ThS*	Cent..	Opt...	Cent..	1500	1000	530	Yes...	25¾	32½	39½	Opt...	Buffalo.....BA
Car...	12.94	109.0	Car...	.87	No...	2.12x3.25	3	2.12x3 69	2.12x5.25	PrCs...	Ecc..	Pump...	Cent..	Opt...	Cent..	1000	600	1100	Yes...	25½	35½	50½	None..	Buffalo.....RT
Car...	13.25	123.0	Car...	.87	No...	2.25x3.25	3	2.37x4.50	2.37x4.87	PrCs...	Gear..	Pump...	Vane*	Opt...	Cent..	1000	700	1600	Yes...	33	43	51¼	None..	Buffalo.....CM
Car...	17.75	232.0	Car...	1.00	No...	2.75x4.00	3	2.75x5.50	2.75x5.87	PrCs...	Gear..	Pump...	Gear..	Opt...	Cent..	900	575	2400	Yes...	41¾	54¼	56½	None..	Buffalo.....CE
ASt...	16	220	ChN.	None...	Yes...	3.00x3.50	4	3.25x3.81	3.25x4.50	PrCk...	Ecc..	Pump...	Cent.	Stk...	Cent.	1200	700	2660	.....	29 1/16	46 1/16	73 1/16	1	Climax.....RBU
ASt...	16.00	220	ASt..	None...	No...	3.00x3.50	3, 4	3.25x3.66	3.25x4.50	PrCk...	Ecc..	Pump...	Cent.	Stk..	Cent.	1200	700	2000	Yes...	31 1/16	....	57°	1	Climax.....R4U, R6U
ASt...	13.00	110.0	ASt..	None...	No...	2.25x3.00	3	2.19x3.78	2.31x4.40	PrCk...	Ecc..	Pump...	Cent.	Stk..	Cent.	1200	700	1100	Yes...	26¼	39¾	49½	1	Climax.....K, KU, KL
ASt...	14.00	179.0	ASt..	None...	No...	2.50x3.50	3	2.50x3.81	2.50x4.50	PrCk...	Ecc..	Pump...	Cent.	Stk..	Cent.	1200	700	1550	Yes...	28	43⅞	52	1	Climax.....T & TU
Car...	10.50	45.0	Car...	None...	No...	2.25x1.56	4	2.25x2.34	2.25x2.81	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	1000	580	No...	26	32¼	40⅝	3	Continental.....8R
Car...	8.00	28.0	Car...	None...	No...	1.50x1.44	3	1.50x1.78	1.50x2.75	PrCk...	Gear..	Pump...	Cent.	Stk..	Cent.	1200	1400	305	No...	26	29 1/16	30⅝	4, 5	Continental.....H7
Car...	12.00	119.5	Car...	None...	No...	2.25x2.62	3	2.25x3.00	2.25x3.25	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1200	620	807	No...	26	39⅜	42 11/16	2	Continental.....L5
Car...	13.25	162.7	Car...	None...	No...	2.62x3.00	3	2.37x3.31	2.62x3.69	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1100	700	969	No...	28¾	41 1/16	46 1/16	1	Continental.....B7
Car...	13.50	135.2	ASt..	None...	No...	3.00x2.12	7	3.00x3.06	3.00x2.75	FlPr...	Gear..	Pump...	Cent	Opt...	Opt...	1650	900	1370	No...	28¾	41½	52⅛	1	Continental.....14H
Car...	11.00	68.5	Car...	None...	Yes..	2.37x1.87	4	2.37x2.34	2.37x3.06	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1800	1000	773	No...	26	34 1/16	44⅞	3	Continental.....6J
Car...	11.00	68.5	Car...	None...	Yes...	2.37x1.87	4	2.37x2.34	2.37x3.06	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1800	1000	789	No...	26	34 1/16	44⅞	3	Continental.....6B
Car...	12.00	98.5	Car...	None...	No...	2.25x2.37	3	2.25x2.12	2.25x2.69	FlPr...	Gear..	Pump...	Cent.	Opt...	Var..	1800	1100	748	No...	26	33⅝	38 11/16	2	Continental.....S4
Car...	11.00	79	Car...	None...	No...	2.00x2.18	3	2.25x2.25	2.25x2.62	FlPr...	Gear..	Pump...	Cent.	Opt...	Var..	1400	750	590	No...	26	31 1/16	35	3	Continental.....J4
Car...	11.50	93.2	Car...	None...	No...	2.12x2.37	3	2.25x2.62	2.25x2.75	FlPr...	Gear..	Pump...	Cent.	Opt...	Var..	1300	700	680	No...	26	38½	38	2	Continental.....K4
Car...	12.00	124.7	Car...	None...	No...	2.25x2.62	3	2.25x3.00	2.25x3.25	FlPr...	Gear..	Pump...	Cent.	Opt...	Var..	1200	600	807	No...	26	39⅜	42 11/16	2	Continental.....L4
Car...	13.25	162.7	Car...	None...	No...	2.62x3.00	3	2.37x3.31	2.62x3.69	FlPr...	Gear..	Pump...	Cent.	Opt...	Var..	1100	800	998	No...	28¾	41 1/16	46 1/16	1	Continental.....B5
Car...	8.00	29	Car...	None...	No...	1.50x1.44	3	1.50x1.78	1.50x2.75	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	1200	310	No...	26	32½	29 1/16	Opt...	Continental.....H8
Car...	9.00	28.0	Car...	None...	No...	2.00x1.12	4	2.12x1.37	3.12x1.56	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	800	460	No...	26	32¼	35¼	4	Continental.....20L
Car...	11.00	86.7	Ast..	None...	No...	2.50x1.18	7	2.50x2.06	2.50x2.66	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1800	800	1023	No...	26	35 1/16	47 11/16	2	Continental.....7T
Car...	9.00	39	Car...	None...	No...	2.12x1.37	7	2.37x1 78	2.37x2.19	PrCk...	Gear..	Pump...	Cent.	NP..	.....	.....	.....	587	.....	26	32 1/16	39 1/16	3	Continental.....11U
Car...	11	86.7	ASt..	None...	No...	2.50x1.81	7	2.50x2.06	2.50x2.66	FlPr...	Gear..	Pump...	Cent.	Opt...	Cent..	1800	800	1023	No...	26	35 1/16	47 11/16	2	Continental.....14T
Car...	10.87	44	Car...	None...	.....	2.12x1.50	5	2.37x1.50	2.37x2.50	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	900	746	No...	26 7/8	31	46¼	3	Continental.....9K
Car...	9.00	28	Car...	None...	No...	2.00x1.12	4	2.12x1.34	2.12x1.56	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	800	460	No...	26	32¼	35¼	5	Continental.....28L
Car...	3.25	140.0	ASt..	None...	Opt...	2.37x2.69	3	2.50x3.06	2.50x4.00	FlPr...	Gear..	Pump...	Cent.	Stk..	Cent..	Opt..	1000	1250	Yes...	25¾	40¼	48½	2	Cyclone..C4, CS, A4, A5
ASt...	.....	.....	Car...	None...	Opt...	2.50x2.37	4	2.50x3 00	2.50x4.25	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1000	800	.....	Yes...	25¾	38½	38½	2, 3	Erd.....C6
ASt...	10.00	28.0	Car...	None...	Opt...	2.00x	3	2.00x2 62	2.00x3.69	PrCs...	Gear..	ThS...	None..	Opt...	Opt...	Opt...	1050	450	No...	39	25¾	32½	3, 5	Erd.....S4
Car...	10.00	60	.....	.62	.....	2.00x2.00	3	2.00x2.62	2.00x2.62	PrCs...	Gear..	.....	Gear..	Opt...	.....	.....	800°	475	.....	26	24 1/16	30 1/32	3, 5	Erd.....S4E
Car...	10.00	60	Car...	.62	No...	2.00x2.00	3	2.00x2.62	2.00x2.62	PrCs...	Gear..	Opt...	Cent.	Opt...	.....	.....	1200	470	.....	26	24 1/16	30 1/32	3, 5	Erd.....S4I
Car...	10.00	112.0	Car...	.44	No...	2.00x2.44	5	2.25x3.44	2.25x2.62	PrCs*	Gear..	Pump...	Cent.	Stk...	Cent..	1200	650	1180	Yes...	24¼	35¼	42¾	Opt...	EWC.....GF
Car...	10.00	128.0	Car...	.56	No...	2.00x2.44	5	2.25x3 44	2.25x3 62	PrCs*	Gear..	Pump...	Cent.	Stk...	Cent..	1200	700	1180	Yes...	24¼	37¼	42¾	Opt...	EWC.....CF
Car...	12.00	148.0	Car...	.56	No...	2.00x2.44	5	2 25x3.44	2.25x3.62	PrCs	Gear..	Pump...	Cent.	Stk...	Cent..	1200	700	1300	Yes...	24½	39¼	42¾	Opt...	EWC.....A
Car...	14.00	182.7	Car...	None...	No...	2.50x3.00	5	2.50x3.00	2.62x4.00	PrCs	Gear..	Pump	Cent.	Stk...	Cent..	1000	700	1700	Yes...	29¼	58½	52¾	Opt...	EWC.....DA
Car...	8.12	32.5	Car...	None...	No...	2.06x1.62	3	2.25x2.59	2.22x3.00	SpPr§	Gear..	ThS...	None..	NP..	None..	None..	850	495	No...	27¾	27	39	3, 4	Falls.....T8000‡
ASt...	11	104	ChN.	None...	No...	2.25x2.45	3	2.25x2.25	2.25x3.25	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	1800	1100	984	No...	28¼	44	6½	Yes*..	Hall-Scott.....101
ASt...	11	104	ChN.	None...	No...	2.25x2.45	4	2.75x2.19	2.75x3.19	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	1800	1200	1347	No...	33	45	63 1/16	Yes...	Hall-Scott.....111-1
Car...	10.87	76	Car...	None...	No...	2.50x2.62	3	3.00x3.25	3 00x3.50	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1400	1000	819	.....	26	30⅞	42 1/16	1, 2	Hercules.....K
Car	13.25	.....	Car...	None...	.....	3.00x3.00	...	3.75x4.25	3.75x4.50	PrCs...	Gear..	Pump...	Cent.	Stk...	Cent..	1200	800	1700	.....	28¾	35 1/16	56⅜	0, 1	Hercules.....TXO
Car°	9.50	60.0	Car...	None...	No...	2.00x2.25	3	2.00x2.94	2.00x3.31	PrCs...	Gear..	Pump*	Cent.	Opt...	Opt...	1500°	1000°	605	Yes...	25⅞	28¼	37⅜	2, 3	Hercules...O&OX, OBX
Car...	10.87	76.0	Car...	None...	No...	2.50x2.62	3	3.00x3.25	3.00x3.50	SpPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1400	900	819	Yes...	26	30⅞	42 1/16	1, 2	Hercules.....L
Car...	10.87	76.0	Car...	None...	No...	2.50x2.62	3	3.00x3.25	3.00x3.50	SpPr...	Gear..	Pump...	Cent.	Opt...	Opt...	1400	900	819	Yes...	26	30⅞	42 1/16	1, 2	Hercules.....G
Car...	13.25	.....	Car...	None...	No...	3.00x3.00	3	3.75x4.25	3.75x4.50	PrCs...	Gear..	Pump...	Cent.	Stk...	Opt...	1250	800	1650	No...	28¾	35 1/16	56⅜	0, 1	Hercules.....“TX”
Car...	13.25	.....	Car...	None...	No...	3.00x3.00	3	3.75x4.25	3.75x4.50	PrCs...	Gear..	Pump...	Cent.	Stk...	Opt...	1250	800	1650	No...	28¾	35 1/16	56⅜	0, 1	Hercules.....“TXA”
Car...	11.50	98.0	ASt..	None...	No...	2.12x2.25	3	2.12x2.25	2.25x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1750	775	734	Yes...	25¾	36	37¼	3	Hinkley.....300
Car...	11.50	98.0	ASt..	None...	No...	2.12x2.25	3	2.12x2.25	2.25x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1750	1100	739	Yes...	25¾	36	37¼	3	Hinkley.....400
Car...	12.00	119.0	ASt..	None...	No...	2.25x2.50	3	2.25x2.50	2.37x3.50	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1650	950	884	Yes...	25¾	40	44	2	Hinkley.....500
Car...	12.00	119.0	ASt..	None...	No...	2.25x2.50	3	2.25x2.50	2.37x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1600	900	896	Yes...	25¾	40	44	2	Hinkley.....200
Car...	13.25	141	Car...	None...	No...	3.00x2.75	3	3.00x3.06	3.00x4.00	FlPr...	Gear..	Pump...	Cent.	Opt...	Cent..	1450	780	1075	No...	28¾	42	48	Yes...	Hinkley.....2100
Car...	13.25	144	Car...	None...	No...	3.00x2.75	3	3.00x3.06	3.00x4.00	FlPr...	Gear..	Pump...	Cent.	Opt...	Cent..	1450	875	1175	No...	24¾	45½	48	Yes...	Hinkley.....1900
Car...	10.25	75.0	Car...	.75	Yes...	2.25x2.50	3	2.37x3.00	2.37x3.50	PrCs...	Gear..	Pump...	Cent.	Stk...	Cent..	1200	800	1050	Yes...	25¾	36½	50¾	2	Jackson.....J
Car...	10.50	.....	Car...	.75	Yes...	2.25x2.50	3	2.37x3.00	2.37x2.50	FlPr...	Gear..	Pump...	Cent.	Stk...	Cent..	1200	900	1050	Yes...	.....	.....	.....	.....	Jackson.....J-A
Car...	15.37	272	Car...	1.00	Yes...	3.00x3.50	2	3.00x5.00	3.00x5.00	PrCs...	Gear..	ThS...	None..	Stk...	Cent..	800	800	.....	Yes...	.....	.....	.....	No...	John Deere.....D
Car...	8.00	34	Car...	None...	Yes...	1.75x2.00	2	1.75x2.75	1.75x2.75	CiSp...	Pist..	ThS...	None..	Stk...	Cent..	1800	1500	.....	Yes...	15	24	28	4	Le Roi.....K
Car...	8.00	36.0	Car...	None...	Yes...	1.75x2.00	2	1.75x2.75	1.75x2.75	SpPr...	Pist..	ThS...	None..	Opt...	Cent..	1600	1200	.....	No...	15	24	28	2, 3, 4*	LeRoi.....2C
Car...	8.00	36.0	Car...	None...	Yes...	1.75x2.00	2	1.75x2.75	1.75x2.75	SpPr...	Pist..	ThS...	None..	Opt...	Cent..	1200	1100	.....	No...	17	22	22	Opt...	LeRoi.....MR & M
Car...	9.00	43.0	Car...	None...	No...	1.75x2.00	2	1.87x2.37	1.87x2.75	Splash...	Pist..	ThS...	None..	Opt...	Cent..	2000	1000	400	No...	26⅞	30	41½	2, 3,4,5	Light.....H
Car...	12.00	56.0	Car...	None...	No...	2.12x1.81	5	2.12x2.62	2.12x2.62	PrCk...	Gear..	ThS...	None..	NP..	None..	None..	1200	495	No...	20⅜	30¾	41⅛	3, 5	Lycoming.....CH
Car...	12.00	56.0	Car...	None...	No...	2.12x1.81	5	2.12x2.62	2.12x2.62	PrCk...	Gear..	ThS...	None..	NP..	None..	None..	1200	505	No...	30¾	20⅜	41⅛	3, 5	Lycoming.....CF
Car...	12.00	56.0	Car...	None...	No...	2.12x1.81	5	2.12x2.62	2.12x2.62	PrCk...	Gear..	ThS...	None..	NP..	None..	None..	1200	515	No...	30⅜	30¾	41⅝	3, 5	Lycoming.....CT
Car...	11.94	56.0	Car...	None...	No...	2.12x1.81	5	2.12x2.62	2.12x2.62	PrCk...	Gear..	Opt...	Cent	Opt..	Opt	1000	1000	520	No...	20⅜	26⅝	41⅝	3, 4, 5	Lycoming.....C4
Car...	9.00	42.0	Car...	None...	No...	2.12x1.50	4	2.37x1 94	2.37x2.25	PrCk...	Gear..	Pump...	Cent.	NP..	None..	None..	800	595	No...	25¾	26⅞	38 1/16	4, 5	Lycoming.....2S

NicS—Nickel Steel.
NP—No provision.
Opt—Optional.
Pist—Piston.
PrCk—Pressure to all Crankshaft, Camshaft and Connecting rod bearings, splash to other parts,
PrCs—Pressure to crankshaft and connecting rod bearings.
PS—Pressed Steel.
Rail C—Rail Cars.
Sep—Separate.
Sil—Silcrome Steel.
Sl—Sleeve.
Spec—Special.
SS—Semi Steel.
SpPr—Pressure to main crankshaft bearings only; splash to connecting rods and other parts.
Stk—Standard Equipment.
T—Trucks.
ThS—Thermo-siphon.
Tr—Tractors.
Tun—Tungsten.
Var—Various
*—Optional.
°—Others also.
†—Inlet valve only.
§—Pressure to all main crankshaft and camshaft bearings.

American Stock

MAKE AND MODEL	Designed For	Number of Cylinders, Bore and Stroke (Ins.)	Rated H.P. (N.A.C.C.)	R.P.M. at Maximum Brake H.P.	Piston Displacement (Cu. Ins.)	Compression Ratio	Number of Point Suspension	CYLINDERS: Head	CYLINDERS: No. Cast in One Piece	CRANKCASE: Upper Half: Integral with Cylinder?	CRANKCASE: Upper Half: Material	CRANKCASE: Material (Lower Half)	VALVES: Arrangement	VALVES: Head Material	VALVES: Clear Diameter (Ins.)	VALVES: Lift (Ins.)	FRONT END DRIVE: Type	FRONT END DRIVE: Non-Metallic Gear Used On?	PISTONS: Material	PISTONS: Length (Ins.)	PISTONS: Weight (with Pins, Rings & Bushings) Ozs.	PISTONS: Piston Pins: Diameter and Length (Ins.)	PISTONS: Piston Pins: Pin Bearing In	Number of Rings per Piston
Lycoming 2H	Cars	8-3 1/16x4 1/2	31.25	65-3000	276.1	4.6	3	Det.	8	Sep.	Iron	PS	L	Sil	1.44	.31	Chain	None	CI	3.50	25.0	.87x2.78	Rod	4
Lycoming 3H	Cars	8-3 1/16x4 1/2	32.50	70-3000	287.3	4.6	3	Det.	8	Sep.	Iron	PS	L	Sil	1.44	.31	Chain	None	CI	3.50	25.0	.87x2.78	Rod	4
Lycoming 4H	Cars	8-3 1/16x4 1/2	33.68	84-2900	298.7	5.0	3	Det.	8	Sep.	Iron	PS	L	Sil	1.44	.31	Chain	None	CI	3.50	26	.87x2.87	Rod	4
Lycoming 4S	C, T, & B	6-3 1/16x4 1/2	25.25	55-3000	224.0	4.5	3	Det.	6	Sep.	Iron	PS	L	Sil	1.44	.31	Chain	None	CI	3.50	26	.87x2.87	Rod	4
Lycoming TH	C, T, Buses	6-3 1/16x5	29.4	60-2700	288.6	4.4	3, 4	Det.	6	Sep.	Iron	PS	L	Sil-e	1.81e	.31	Heli	Idler	CI	4.37	38	1.12x2.97	Rod	4
Lycoming TF	Trucks & Buses	6-3 5/16x5	31.5	71-2600	309.6	4.4	3, 4	Det.	6	Sep.	Iron	PS	L	Sil-e	1.81e	.31	Heli	Idler	CI	4.37	40.5	1.12x2.97	Rod	4
Lycoming TS	Trucks & Buses	6-3 7/16x5	36.	75-2600	353.8	4.4	3, 4	Det.	6	Sep.	Iron	PS	L	Sil-e	1.81e	.31	Heli	Idler	CI	4.37	48.5	1.12x2.97	Rod	4
Lycoming GT	Cars	8-2 3/4x4 3/4	24.2	62-3200	225.7	5.0	4	Det.	8	Int	Iron	PS	L	Sil-e	1.37e	.34	Chain	None	Opt	3.50	20	0.87x2.28	Pist	4
Lycoming 4HM	Cars	8-3 1/4x4 1/2	33.8	84-2900	298.6	5.0	4	Det.	8	Sep.	Iron	PS	L	Sil-e	1.44e	.31	Chain	None	Opt	3.50	26¶	0.87x2.87	Rod	4
Lycoming 4SM	Cars, T, Buses	6-3 1/4x4 1/2	25.3	55-3000	224.0	4.5	3	Det.	6	Sep.	Iron	PS	L	Sil-e	1.44e	.31	Chain	None	CI	3.50	26	.87x2.87	Rod	4
Lycoming 4SG	Trucks & Buses	6-3 1/4x4 1/2	25 3	55-3000	224.0	4.5	3	Det.	6	Sep.	Iron	PS	L	Sil-e	1.44e	.31	Heli	Idler*	CI	3.50	26	.87x2.87	Rod	4
Niagara	C, Tr	4-2 3/4x4	12.10	15-1600	95.0	3...	3	Det.	4	Int	Iron	Iron	L	CI	1.18	.25	Spur	None	CI	3.00	20.0	.62x2.50	Flo	3
Powell TB-2	Trucks	4-3x8	14.4	45-1500	226	5.3	4	Det.	4	Int	Iron	Iron	L	CI	1.50	.37	Chain	None	Al	3.50	17	.75x2.69	Flo	4
Reliable 10-20	Tractors	2-6 x7	18.81	22-600	.....	5.0	3	Det.	2	Sep.	SS	Iron	I	CI	.....	.....	Spur	None	CI	.....	.....	.....	Pist	3
Stearns HU & H	Buses & T	4-4 1/2x6	32.40	45-1000	381.7	4.3	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.00	.37	Heli	None	CI	5.75	80.5	1.50x4.00	Rod	3
Stearns AU, A, AR	B, T, Tr	4-4 3/4x6 1/2	36.10	°50-1000	460.7	4.3	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.25	.37e	Heli	None	CI	6.00	96.0	1.62x4.25	Rod	4
Stearns DU, D, DR	B, C, Tr	4-5 1/2x6 1/2	42.00	°60-1000	536.4	4.3	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.25	.37e	Heli	None	CI°	6.00	96.0	1.62x4.62	Rod	4
Stearns HR	Buses & T	4-4 1/2x6	32.40	65-1600	381.7	4.7	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.00	.44	Heli	None	Dur	6.12	44.0	1.50x4.00	Rod	4
Stearns E6, EU6, ER6	B, T, Tr	6-5 1/2x6 1/2	73.60	100-1000	926.6	°4.3	3, 4	Det.	6	Sep.	CI	CI	L	Sil	2.37	.44	Chain	None	CI°	6.00	96.0	1.62x5.00	Rod	4
Stearns D6, DU6, DR6	B, T, Tr	6-5 1/2x6 1/2	63.00	155-1500	804.5	4.9	3, 4	Det.	6	Sep.	CI	CI	L	Sil	2.37	.44	Chain	None	Dur°	6.50	59.0	1.62x4.62	Rod	4
Stearns EU4		4-5 1/2x6 1/2	48.40	120-1500	617.7	4.3	3	Det.	4	Sep.	Iron	CI	I	Sil	2.25	.44	Heli	None	CI	6.75	92	1.62x	Rod	4
Stearns EU	B, T & Tr	4-5 1/2x6 1/2	48.40	120-1500	617.7	4.3	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.25	.37	Heli	None	CI	6.50	96	1.62x5.00	Rod	4
Stearns ER	B, T & Tr	4-5 1/2x6 1/2	48.40	150-1700	617.7	4.7	3, 4	Det.	4	Sep.	CI	CI	I	Sil	2.25	.44	Heli	None	Dur	6.50	62	1.52x5.00	Rod	4
Turmo N	C, T, B, Tr	4-3 x4 1/2	14.40	23-2000	127.2	4.0	3	Int	4	Sep.	Iron	PS	L	CI	1.50	.31	Heli	None	CI	3.25	23.5	.75x2.75	Pist	3
Turmo S	C, T, B, Tr	4-3 1/2x5	19.60	47-2000	192.4	4.0	3	Det.	4	Sep.	SS	PS	L	CI	1.62	.31	Heli	None	SS	3.75	36.5	.87x3.25	Pist	3
Turmo H	C, T B, Tr	4-3 3/4x5	22.50	47-2000	220.9	4.0	3	Int	4	Sep.	SS	PS	L	CI	1.75	.37	Heli	None	SS	4.00	46.0	1.00x3.50	Pist	3
Twin City TW	Tractors	4-4 1/4x6	28.90	40-1200	340.4	4.0	4	Det.	4	Int	Iron	Iron	I	CI	1.50	.31	Heli	None	CI	5.09	73.0	1.25x3.87	Rod	4
Twin City AE	Tractors	4-5 1/2x6 3/4	48.40	90-1500	641.4	3.8	4	Det.	4	Int	Iron	Iron	I	CI	1.75	.44	Heli	None	CI	6.75	170.0	1.62x5.00	Rod	5
Twin City TR	Tractors	4-6 1/4x8	62.50	66-750	981.7	4.1	4	Det.	2	Sep.	Iron	Iron	I	CI	2.50	.57	Heli	None	CI	7.75	320.	1.87x5.50	Rod	4
Twin City TA	Tractors	4-7 1/4x9	84.1	84-650	1486.0	3.5	4	Det.	1	Sep.	Iron	Iron	I	CI	3.00	.69	Heli	None	CI	10.00	526.0	2.19x6.68	Rod	4
Twin City BE	Tractors	4-7 3/4x9	96.10	100-650	1698.3	3.5	4	Det.	1	Sep.	Iron	Iron	I	CI	3.00	.69	Heli	None	CI	10.25	582.0	2.19x7.19	Rod	4
Twin City TE	Tractors	6-7 3/4x9	144.1	140-650	2547.5	3.5	4	Det.	1	Sep.	Iron	Iron	I	CI	3.00	.69	Heli	None	CI	10.25	582	2.19x7.19	Rod	4
Van Blerck N-6	Buses, Tr	6-5 1/2x6	72.5	156-1500	855.3	4.1	3	Det.	2	Sep.	SS	Al	I	Sil	2.12	.37	Heli	None	SS	6.25	172	1.50x5.19	Rod	3
Waukesha ZA	T, Tr	4-3 1/4x4 1/2	16.90	24-2000	149.3	4.5	3	Det.	4	Int	Iron	PS	L	CI	1.37	.25	Heli	None	CI	3.69	29.0	.75x2.94	Pist	3
Waukesha CU	T, B, Tr	4-4 3/8x5 3/4	30.63	53-1900	346	4.0	3	Det.	2	Sep.	Al	Iron°	L	Sil	2.00	.34	Heli	None	Al°	°6.19	°51.0	1.25x3.75	Pist	3, 6
Waukesha GU	T & Tr	4-5 3/8x6 1/4	46.20	70-1600	567.0	3.6	3	Det.	2	Sep.	Al	Iron	L	Car	2.13	.34	Heli	None	CI	6.47	154.0	1.37x4.81	Pist	3
Waukesha 6HL	T & B	6-4 1/4x5 3/4	43.10	82-2000	490.0	3.9	3	Det.	2	Sep.	Al	Al	L	Sil	2.00	.34	Heli	None	CI	5.00	.....	1.37x3.69	Pist	3
Waukesha 6QL	T & B	6-4 x5 3/4	38.40	83-2200	434.0	3.8	3	Det.	2	Sep.	Al	Al	L	Sil	2.00	.34	Heli	None	CI Al	5.00	72 45	1.37x3.37	Pist	3
Waukesha V	T, B & Tr	4-4 x5	25.60	50-2200	251.0	4.1	3	Det.	4	Int	Iron	Al	L	CI	1.75	.34	Heli	None	CI	4.34	58	1.00x3.62	Pist	3
Waukesha XA	T & Tr	4-3 1/2x4 1/2	19.05	34 1/2-2650	173.0	4.6	3	Det.	4	Int	Iron	PS	L	CI	1.37	.25	Heli	None	CI	3.69	35	.75x3.19	Pist	3
Waukesha FU	T, B, Tr	4-4 x5 3/4	25.60	37-1400	289.0	°4.3	3	Det.	2	Sep.	Al	Iron	L	Sil	2.00	.34	Heli	None	CI°	°5.56	°89.0	1.25x3.37	Pist	3, 6
Waukesha DU	T, B, Tr	4-4 1/2x6 1/4	32.40	50-1400	397.6	3.7	3	Det.	2	Sep.	Al	Iron	L	Car	2.12	.34	Heli	None	CI°	°5.87	120.0	1.37x3.87	Pist	3, 6
Waukesha EU	T, Tr	4-5 x6 1/4	40.00	60-1400	490.8	3.7	3	Det.	2	Sep.	Al	Iron	L	Car	2.12	.34	Heli	None	CI	6.25	141.0	1.37x4.44	Pist	3
Waukesha WS	Industrial	4-5 3/4x8	52.90	89-1200	831.0	3.7	4	Det.	2	Sep.	Al	Iron	L	Car†	2.50	.44	Heli	None	CI	7.50	210.0	1.62x5.25	Pist	4
Waukesha WL	Industrial	4-6 1/4x8	62.50	105-1200	982.0	3.7	4	Det.	2	Sep.	Al	Iron	L	Car†	2.50	.44	Heli	None	CI	7.50	246.0	1.62x5.75	Pist	4
Waukesha 6AL	T & B	6-4 1/2x5 3/4	48.60	93-2000	549.0	°4.2	3	Det.	2	Sep.	Al	Al	L	Sil	2.00	.34	Heli	None	Al°	5.34	°62.5	1.37x3.75	Pist	4, 3
Waukesha 6KL	Trucks & Buses	6-4x4 3/4	38.40	80-2400	358	4.64	3	Det.	3	Sep.	Iron	Al	L	ChN	1.75	.37	Heli	None	CI	4.34	54	1.00x3.62	Pist	3
Wisconsin SU	T, Tr	4-4 x5	25.60	50-2000	251.3	4.2	3	Det.	4	Int	Iron	PS	I	Sil	1.50	.38	Heli	Yes	CI	4.25	54.7	1.06x4.48	Rod	3
Wisconsin RAU, RCU	C, T, B, Tr	4-4 3/4°x6	36.10	61-1600	425.3	3.76	3	Det.	2	Sep.	Al	Al	L	Sil	2.12	.34	Heli	None	CI	6.12	99.0	1.37x4.31	Rod	3
Wisconsin RBU	C, T, B, Tr	4-5 x6	40.00	64-1600	471.2	3.78	3	Det.	2	Sep.	Al	Al	L	Sil	2.12	.34	Heli	None	CI	5.91	109.0	1.37x4.56	Rod	3
Wisconsin Y	Cars & B	6-3 3/8x5	27.34	75-3000	268.0	4.6	3	Det.	6	Int	Iron	PS	I	Sil	1.50	.38	Chain	None	CI	4.00	32.0	1.06x3.12	Rod	3
Wisconsin Z	Buses	6-4 1/2x5	48.60	103-2200	477.0	4.5	3	Det.	6	Sep.	Al	Al	I	Sil	1.93	.38	Heli	Yes	CI	4.75	.....	1.19x3.93	Rod	4
Wisconsin H, HB	T, B, & Tr	6-4°x5	38.4	67-2000	377	4.54	3, 4	Det.	6	Int	Iron	Al	I	Sil-e	1.62	.38	Heli	Accx	CI	4.50	59.5	1.19x3.47	Rod	3
Wiscinsin W	T, Tr	4-4 1/2x5	27.2	53-2000	367	.....	3	Det.	4	Int	Iron	PS	I	Sil	1.53	.38	Heli	Accx°	CI	4.25	55	1.06x3.48	Rod	3
Wisconsin X	Trucks & Tr	4-4 1/2x5	32.4	74-2300	318.1	.....	3	Det.	4	Int	Iron	Al	I	Sil	2.06	.38	Heli	Accx°	CI	4.75	.....	1.19x3.94	Rod	4
Wisconsin E	Tractors	6-6x7	86.4	145-1200	1187	4.0	4	Det.	2	Sep.	Iron	Iron	I	Sil	2.50	.44	Heli	None	CI	6.25	.....	1.69x5.22	Rod	4
Wisconsin K	Tractors	4-6x7	57.6	112-1300	792	4.0	4	Det.	4	Sep.	Iron	Iron	I	Sil	2.50	.44	Heli	None	CI	6.25	.....	1.69x5.22	Rod	4
Wisconsin C, C-1	Tractors	4-3 3/4°x5	22.5	38-2000	221	4.17	3	Det.	4	Int	Iron	PS	L	Sil	1.53	.26	Heli	None	CI	4.47	.....	1.06x	.....	3
Wisconsin B-2, B-3	Tractors	4-5 1/4x6 1/2	44.1	91-1400	563	4.08	3	Det.	4	Sep.	Iron	Iron	I	Sil	2 25	.43	Heli	None	CI	5.95	.....	1.50x4.50	Rod	4
Yellow-Sleeve Z	Buses	4-4 x6	25.60	56-2000	301.6	4.6	3*	Det.	4	Sep.	Al	Al	Sl	None	No	No	Chain	None	CI	4.92	66.	1.25x3.62	Pist	3
Yellow-Sleeve Y, YZ	Buses	6-4 1/4x5 1/2	43.35	108-2100	468.0	4.8	3	Det.	6	Sep.	Al	Al	Sl	None	No	No	Chain	None	CI	5.00	72.93	1.25x3.62	Flo	5
Yellow Sleeve HX	Buses	6-3 1/2x4 1/2	29.40	60 1/2-2600	260.0	5.1	3	Det.	6	Sep.	Al	Al	Sl	None	No	No	Chain	None	CI	4.44	43.92	1.00x2.97	Flo	5
Yellow Sleeve V	T, Taxis	4-3 11/16x5	18.90	41-2300	185.6	4.8	4	Det.	4	Sep.	Iron	PS	Sl	None	No	No	Chain	None	CI	4.00	36.16	1.09x2.85	Flo	4

ABBREVIATIONS:
Accx—Accessories Drive.
Al—Aluminum Alloy.
ASt—Alloy Steel.
B—Buses.
Ball—Ball Bearing
C—Cars.
Car—Carbon Steel.
Cam—Camshaft.
Cent—Centrifugal.
Ch N—Chrome Nickel Steel.
Chr—Chromium Steel.
CI—Cast Iron.
Det—Detachable.
Dur—Duralumin.
e—Exhaust.
Ecc—Eccentric.
Fl Pr—Full Pressure to all bearings including wrist pins.
Flo—Floating.
Heli—Helical.
I—Both valves in head.
Int—Integral.
L—Valves at side. ("L" head).
Mag—Magnesium.

Engines—Continued

CONNECTING RODS			CRANKSHAFT							OILING SYSTEM		WATER CIRCULATION		GOVERNOR			MISCELLANEOUS							MAKE AND MODEL
						Crank Pin	Main Bearings													Overall Dimensions (Ins.)				
								Diameter and Length (Ins.)																
Material	Center to Center Length (Ins.)	Weight (with Bushings and Cap) Ozs.	Material	Offset (Ins.)	Counter Balances Used?	Diameter and Length (Ins.)	Number	Front	Rear	Type of System	Pump Type	Type	Pump Type	Furnished?	Type	Maximum Governed Speed (R.P.M.)	Speed at which Maximum Torque is Developed (R.P.M.)	Weight (without Carburetor or Ignition) Lbs.	Adapted for Use of Kerosene?	Width	Height	Length	Bell Housing Provided? S.A.E. Numbers	
Car...	9.00	42.0	Car...	None...	No...	2.12x1.50	5	2.37x2.69	2.37x2.69	PrCs...	Gear..	Pump...	Cent..	NP...	None..	None..	800	700	No...	25¾	26⅝	48 1/16	4	Lycoming.....2H
Car...	9.00	42.0	Car...	None...	No...	2.12x1.50	5	2.37x2.69	2.37x2.69	PrCs...	Gear..	Pump...	Cent..	NP...	None..	None..	800	700	No...	25¾	26⅝	48 1/16	4	Lycoming.....3H
Car...	9.00	42 0	Car...	None...	No...	2.13x1.50	5	2.37x2.69	2.37x2.69	PrCs...	Gear..	Pump...	Cent..	NP...	None..	None..	800	700	No...	25¾	26⅝	48 1/16	4	Lycoming.....4H
Car...	9.00	42	Car...	None...	No...	2.13x1.50	4	2.37x1.94	2.37x2.25	PrCs...	Gear..	Pump...	Cent..	NP...	None..	None..	800	595	No...	25¾	26⅞	38 1/16	4, 5	Lycoming.....4S
Car...	10.75	44.5	Car...	None...	No...	2.50x1.62	4	2.75x2.62	2.75x2.62	PrCk...	Gear..	Pump...	Cent	NP...	None..	None..	800	745	No...	25¾	30 1/16	44 1/16	3	Lycoming.....TH
Car...	10.75	44.5	Car...	None...	No...	2.50x1.62	4	2.75x2.62	2.75x2.62	PrCk...	Gear..	Pump...	Cent	NP...	None..	None..	800	745	No...	25¾	30 1/16	44 1/16	3	Lycoming.....TF
Car...	10.75	44.5	Car...	None...	No...	2.50x1.62	4	2.75x2.62	2.75x2.62	PrCk...	Gear..	Pump...	Cent.	NP...	None..	None..	800	750	No...	25¾	30 1/16	44 1/16	3	Lycoming.....TS
Car...	9.50	37	Car...	None...	No...	2.12x1.25	5	2.37x1.75	2.37x1.75	PrCk...	Gear..	Pump...	Cent.	NP...	None..	None..	1100	630	No...	22	28¼	42 1/16	5	Lycoming.....GT
Car...	9.00	42	Car...	None...	No...	2.12x1.50	5	2.37x2.62	2.37x2.62	PrCs...	Gear..	Pump...	Cent.	NP...	None..	None..	800	700	No...	25¾	26⅝	48 1/16	4, 5	Lycoming.....4HM
Car...	9.00	42	Car...	None...	No...	2.12x1.50	4	2.37x1.94	2.37x2.25	PrCs...	Gear..	Pump...	Cent.	NP...	None..	None..	800	595	No...	25¾	26⅞	38 1/16	3,4,5*	Lycoming.....4SM
Car...	9.00	42	Car...	None...	No...	2.12x1.50	4	2.12x1.94	2.12x2.25	PrCs...	Gear..	Pump...	Cent.	NP...	None..	None..	800	625	No...	25¾	26⅞	38 1/16	3,4,5*	Lycoming.....4SG
Car...	7.50	25.0	Car...	None...	No...	1.44x1.75	2	1.44x2.75	1.44x2.38	SpPr...	Pist..	Pump...	Gear..	Opt..	None..	None..	.....	250	Yes..	11	18¾	37¾	.....	Niagara.....
Dur...	.....	.....	Car...	None...	.....	2.50x1.50	2	Ball.....	Ball.....	PrCk...	Gear..	Pump...	Cent.	Opt..	Suct..	1800	700	700	Yes..	25¾	36	32	3	Powell.....TB-2
Car...	.....	.....	ASt..	None...	No...	3.00x3.00	2	3.00x5.00	3.00x5.00	FlPr...	Ecc...	Pump...	Cent.	Stk...	Cent..	600	600	1000	Yes..	.....	.....	.....	.....	Reliable.....10-20
Dur...	12.50	112.0	NicS.	.50	No...	2.50x3.25	3	2.50x3.18	2.50x4.00	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	1200	900	950	Yes..	23	38⅝	46⅝	3, 2	Stearns.....HU & H
Dur...	13.25	152.0	NicS.	.50	No...	2.75x3.50	3	2.87x3.43	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	°1200	°950	1400	Yes..	23	42¾	50	1, 2	Stearns.....AU , A, AR
Dur...	13.25	152.0	NicS.	.50	No...	2.75x3.50	3	2.87x3.43	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	°1200	°950	1450	Yes..	23	42¾	50	1, 2	Stearns.....DU, D, DR
Dur...	12.50	112.0	NicS.	.50	No...	2.50x3.25	3	2.50x3.18	2.50x4.00	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	1500	1200	900	Yes..	23	38⅝	46⅝	2, 3	Stearns.....HR
Dur...	13.25	152.0	NicS.	None...	No...	2.75x3.50	4	2.87x4.48	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	°1200	°950	°1950	Yes..	25½	34½	70	1	Stearns...E6, EU6, ER6
Dur...	13.25	152.0	NicS.	None...	No...	2.75x3.50	4	2.87x4.48	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	°1500	°1200	°1825	Yes..	25½	34½	70	1	Stearns...D5, DU6, DR6
Dur...	13.25	152	ASt..	.50	No...	2.75x3.50	3	2.87x3.43	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	1400	1000	1495	Yes..	23	42¾	50	1, 2	Stearns.....EU4
Dur...	13.25	152.0	NicS.	.50	No...	2.75x3.50	3	2.87x3.43	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	1200	900	1550	Yes..	23	42¾	50	1, 2	Stearns.....EU
Dur...	13.25	152.0	NicS.	.50	No...	2.75x3.50	3	2.87x3.43	2.87x4.48	FlPr...	Gear..	Pump...	Cent.	Opt..	Cent..	1500	1200	1500	Yes..	23	42¾	50	1	Stearns.....ER
Car...	10.00	44.0	Car...	None...	No...	2.00x2.00	2	Ball.....	Ball.....	Splash..	Pump.	ThS.....	None..	Stk...	Cent..	Opt...	1400	300	No...	24	28	27⅝	4*	Turmo.....N
Car...	10.00	44.5	Car...	None...	No...	2.00x2.00	3	1.87x3.12	2 00x3.25	FlPr...	Gear..	ThS.....	None..	Stk...	Cent..	Opt...	1600	465	No...	24	28	35	3*	Turmo.....S
Car...	10.00	44.7	Car...	None...	No ...	2.00x2.00	3	1.94x3.12	2.06x3.25	FlPr...	Gear..	Pump...	Cent.	Stk...	Cent..	Opt...	1400	475	No...	24½	28	35	3*	Turmo.....H
Car...	12.00	112.0	Car...	None...	Yes...	2.37x2.87	3	2.25x3.06	2.75x4.00	PrCs...	Gear..	Pump...	Cent.	Stk...	Cent..	1500	1000	1040	Yes..	28	42¾	40 11/16	2	Twin City.....TW
Car...	14.00	248.0	Car...	None...	Yes...	3.00x3.62	3	2.87x3.9	3.12x5.75	PrCs...	Gear..	Pump...	Cent.	Stk...	Cent..	1200	600	1900	Yes..	33½	51½	52¾	None..	Twin City.....AE
Car...	18.00	317.0	Car...	None...	No...	3.00x3.44	3	3.00x6.12	3.00x6.44	PrCs...	Vane..	Pump...	Cent.	Stk...	Cent..	750	500	2200	Yes..	34⅞	52⅛	55⅝	None..	Twin City.....TR
Car...	20.50	608.0	Car...	None...	No...	3.50x4.37	5	3.50x6.19	3.50x6.68	PrCs...	Vane..	Pump...	Cent.	Stk...	Cent.	650	350	3800	Yes..	39	68¾	69	None..	Twin City.....TA
Car...	20.50	616.0	Car...	None...	No...	3.50x4.37	5	3.50x6.19	3.50x6.68	PrCs...	Vane..	Pump...	Cent.	Stk...	Cent..	650	350	3900	Yes..	39	68¾	69	None..	Twin City.....BE
Car...	20.50	616.0	Car...	None...	No...	3.50x4.37	7	3.50x6.19	3.50x6.68	PrCs...	Vane..	Pump...	Cent.	Stk...	Cent..	650	350	6000	Yes..	39⅜	66	93	.....	Twin City.....TE
ASt..	13.25	200	ChN.	None...	No...	2.62x3.00	5	2.75x4.00	2.75x4.25	FlPr...	Gear..	Pump...	Opt...	Opt...	Cent..	1500	1500	1800	No...	29¾	38⅞	83 1/16	Yes...	Van Blerck.....N-6
Car...	8.75	36.7	Car...	.25	No...	2.00x1.50	3	2.00x1.87	2.00x2.50	PrCk...	Gear..	ThS.....	None..	Opt...	Cent..	2000	1000	375	Yes..	17⅞	28	45½	5	Waukesha.....ZA
Car...	12.25	116.5	ASt..	.25	No...	2.37x2.50	3	2.37x2.50	2.50x3.25	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	°1600	°800	940	Yes..	30½	38¾	55½	1, 2	Waukesha.....CU
Car...	13.25	148.0	Al....	.50	No...	2.37x3.25	3	2.37x3.25	2.50x4.00	PrCs...	Gear..	Pump...	Vane..	Stk...	Cent.	1050	600	1100	Yes..	30½	40½	62	1	Waukesha.....GU
Car...	12.25	116.0	ASt..	None...	No...	2.37x2.50	4	3.00x2.62	2.62x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1600	900	1050	No...	25¾	41	69½	2	Waukesha.....6HL
Car...	12.25	116.0	ASt..	None...	No...	2.37x2.50	4	3.00x2.62	2.62x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent..	1600	900	1050	No...	25¾	41	69½	2	Waukesha.....6QL
Car...	10.00	56.0	Car...	.25	No...	2.25x2.00	3	2.25x2.00	2.37x2.75	PrCs...	Gear..	Opt.....	Cent..	Opt...	Cent..	1400	1000	580	No...	21	34	48⅛	3	Waukesha.....V
Car...	8.75	36.5	Car...	.25	No...	2.00x1.50	3	2.00x1.87	2.00x2.50	PrCs...	Gear..	ThS.....	None..	Opt...	Cent..	1800	1050	375	No...	17⅞	27	45½	5	Waukesha.....XA
Car...	12.25	116.5	ASt..	.25	No...	2.37x2.50	3	2.37x2.50	2.50x3.25	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	°1400	°850	°825	Yes..	30½	38¾	55½	1, 2	Waukesha.....FU
Car...	13.25	122.0	ASt..	.25	No...	2.37x2.75	3	2.37x2.75	2.50x3.50	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	°1200	°750	1000	Yes..	30½	40½	58	1, 2	Waukesha.....DU
Car...	13.25	140.0	ASt..	.50	No...	2.37x3.25	3	2.37x3.25	2.50x4.00	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	1200	650	1050	Yes..	30½	40½	62	1, 2	Waukesha.....EU
Car...	18.00	232.5	ASt..	1.00	No...	3.25x2.75	5	3.75x3.75	3.75x5.50	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent.	1000	500	2450	Yes..	30½	51¾	59½	Opt...	Waukesha.....WS
Car...	18.00	232.5	ASt..	1.00	No...	3.25x2.75	5	3.75x3.75	3.75x3.50	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent.	1000	500	2500	Yes..	30½	51¾	59½	Opt...	Waukesha.....WL
Car...	12.25	116.0	ASt..	None...	No...	2.37x2.50	4	3.00x2.62	3.00x3.50	PrCk...	Gear..	Pump...	Cent	Opt	Cent..	1800	1000	1050	No...	25¾	40¾	69½	Opt...	Waukesha.....6AL
Car...	10.25	57	ChN.	None...	No...	2.75x1.50	7	3.00x1.87	3.00x3.00	PrCk...	Gear..	Pump...	Cent.	Opt...	Cent.	2000	1400	1040	No...	26	32½	61 1/16	2, 3	Waukesha.....6KL
Car...	10.50	56.0	Car...	None...	No...	2.00x2.00	3	1.94x2.50	2.06x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	None..	None..	1000	635	No...	22	34⅛	35⅛	3	Wisconsin.....SU
Car...	12.50	121.0	ASt..	None...	No...	2.25x3.00	3	2.25x3.00	2.37x4.00	PrCs...	Gear..	Pump...	Cent.	Opt...	None..	None..	950	890	No...	23⅞	36¼	48¾	3	Wisconsin...RAU, RCU
Car...	12.50	121.0	ASt..	None...	No...	2.25x3.00	3	2.25x3.00	2.37x4.00	PrCs...	Gear..	Pump...	Cent.	Opt...	None..	None..	950	900	No...	23⅞	36¼	48¾	3	Wisconsin.....RBU
Car...	12.00	59.0	Car...	None...	No...	2.50x1.50	3	2.50x2.34	2.50x2.75	PrCs...	Gear..	Pump...	Cent.	NP...	None..	None..	900	790	No...	25¾	36	41⅞	3	Wisconsin.....Y
Car...	10.50	.....	Car...	None...	No...	2.75x2.50	4	2.75x3.00	2.75x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	Opt...	.....	800	950	No...	21⅞	34¼	52 1/16	2	Wisconsin.....Z
Car...	10.5	94.8	Car...	None...	No...	2.75x2.00	4	2 75x2.50	2.75x3.00	PrCk...	Gear..	Pump...	Cent.	Stk...	Cent..	1575	800	1015	No...	25¾	35⅝	55 1/16	2	Wisconsin.....H, HB
Car...	10.50	.....	Car...	None...	.....	2.37x2.00	3	2.37x2.50	2.37x3.00	PrCs...	Gear..	Pump...	Cent.	Opt...	.....	.....	900	645	No...	22	34⅛	35⅛	3	Wisconsin.....W
Car...	10.50	.....	Car...	None...	No...	2.75x2.50	3	2.75x3.00	2.75x3.00	PrCk...	Gear..	Pump...	Cent.	Opt...	.....	.....	1200	850	No...	25¾	36	47 1/16	2	Wisconsin.....X
Car...	14	.....	Car...	None...	No...	3.25x3.00	4	3.75x4.00	3.75x4.00	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	.....	700	.....	.....	.....	.....	.....	.....	Wisconsin.....E
Car...	14	.....	Car...	None...	No...	3.25x3.00	3	3.25x4.00	3.25x4.00	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	.....	800	2050	.....	28½	49 1/16	55 1/16	0	Wisconsin.....K
Car...	10½	.....	Car...	None...	No...	2.00x2.00	3	1.94x2.50	2.06x3.00	PrCk...	Gear..	Pump...	Cent.	Opt...	Opt...	.....	900	605	.....	25¾	27¼	35⅛	3	Wisconsin.....C, C-1
Car...	13	.....	Car...	None...	No...	3.00x2.75	3	3.00x3.50	3.00x3.50	FlPr...	Gear..	Pump...	Cent.	Opt...	Opt...	.....	800	1800	.....	28½	46⅞	51 1/16	0	Wisconsin... B-2, B-3
Car...	13.37	92.0	Car...	.31	Yes...	2.37x2.37	3	3.00x2.50	3.00x3.94	PrCs...	Gear..	ThS.....	None..	Opt...	Cent..	2000	900	994	No...	32¼	38	64½	Opt...	Yellow-Sleeve.....Z
Car...	12.12	105.3	Car...	None...	No...	2.75x1.75	7	2.75x2.28	2.75x3.25	FlPr...	Gear..	Pump...	Cent..	Opt...	Cent..	°2000	800	1000	No...	°28	39½	51°	2	Yellow-Sleeve.....Y, YZ
Car...	10.75	63 .60	Car...	.25	No...	2.37x2.00	4	2.25x2.12	2.44x3.25	PrCs...	Gear..	Pump...	Cent.	Opt...	Cent.	1800	1200	791	No...	27⅜	41 1/16	46 1/16	3	Yellow Sleeve.....HX
Car...	10.50	48.0	Car...	.31	No...	2.25x1.87	3	2.19x2.41	2.31x3.31	PrCs...	Gear..	ThS.....	None..	Opt...	Suct...	2000	800	579	No...	25⅝	27⅝	36 1/16	4	Yellow Sleeve.....V

NicS—Nickel Steel.
NP—No provision.
Opt—Optional.
Pist—Piston.
PrCk—Pressure to all Crankshaft, Camshaft and Connecting rod bearings, splash to other parts.
PrCs—Pressure to crankshaft and connecting rod bearings.
PS—Pressed Steel.
Rail C—Rail Cars.
Sep—Separate.
Sil—Silcrome Steel.
Sl—Sleeve.
Spec—Special.
SS—Semi Steel.
SpPr—Pressure to main crankshaft bearings only; splash to connecting rods and other parts.
Stk—Standard Equipment.
Suct—Suction.
T—Trucks.
ThS—Thermo-siphon.
Tr—Tractors.
Tun—Tungsten.
Var—Various.
*—Optional.
°—Others also.
†—Inlet valve only.
‡—Pressure to all main crankshaft and camshaft bearings.
¶—For cast-iron piston.

American Stock

MAKE AND MODEL	Designed for	Maximum Load on Spring Pads (Lbs.)	Maximum Drive Shaft Torque (Lb. Ft.)	Type	Final Drive	GEAR MATERIALS (S.A.E. Nos.) First Reduction Pinion	First Reduction Gear	Final Reduction Pinion	Final Reduction Gear	GEAR RATIO First Reduction Standard	First Reduction Optional	Final Reduction Optional	Final Reduction Standard	Final Reduction Optional	NOMINAL PITCH OF GEARS First Reduction	NOMINAL PITCH OF GEARS Final Reduction	FACE OF GEARS First Reduction	FACE OF GEARS Final Reduction	AXLE SHAFT Diameter at Differential End (Ins.)	AXLE SHAFT Diameter at Wheel End (Ins.)	AXLE SHAFT Material S.A.E. No.	RANGE OF SPRING CENTERS Maximum	RANGE OF SPRING CENTERS Minimum	Propulsion Taken by	Torque Taken By	Provision for Radius Rods?
Adams.....**75002**	Cars			½F	S B	2315	2315	None	None	4.87	None	None	None	None	4.9	None	1.25	None	1.25	1.50	3135	37		Sp	Sp	No
Adams.....**75100**	Cars			½F	S B	2315	2315	None	None	4.77	5.11	None	None	None	4.65	None	1.25	None	1.25	1.50	3135	39		Sp	Sp	No
Clark.....**B-365**	Trucks	3600	550	½ F	S B	2315	2315	None	None	5.1	5.66	4.25	None	None	4.25	None	1.25	None	1.62	5.87	3140	40	38½	Sp	Sp	No
Clark.....**B-501**	Trucks	5500	650	½ F	S B	2315	2315	None	None	6.28	5.50	None	None	None	3.48	None	1.31	None	1.75	0.25	3140	40	38½	Sp	Sp	No
Clark.....**B-720**	Trucks	7200	1000	½ F	S B	2315	2315	None	None	7.00	8.00	6.22	None	None	3.33	None	1.81	None	2.06	2.75	3140	40	38½	Sp	Sp	No
Clark.....**B-720 Bus**	Buses	7200	1000	½ F	S B	2315	2315	None	None	7.00	8.00	6.22	5.60	None	3.33	None	1.81	None	2.06	2.75	3140	47	42	Sp	Sp	No
Columbia.....**12000**	Cars	2000	Var	½ F	S B	2320	1020	None	None	5.10	None	None	None	None	5.00	None	1.31	None	1.25	1.56	2335	40	37	Sp	Sp	No
Columbia.....**13000**	Cars	1750	Var	½F	S B	2320	2320	None	None	4.89	4.30	None	None	None	5	None	1.25	None	1.12	1.37	Spec	41	38	Sp	Sp	No
Columbia.....**33000**	Cars	2500	Var	½ F	S B	2320	1020	None	None	4.90	None	None	None	None	4.40	None	1.31	None	1.31	1.75	2335	40	37	Sp	Sp	No
Columbia.....**53000**	Trucks	4200	Var	¾ F	S B	2320	2320	None	None	5.10	5.80	None	None	None	3.40	None	1.50	None	1.56	1.43	2335	40	37	Sp	Sp	No
Duer.....	Trucks	8132	616	Dead	D R	3120	Bro	.....	.....	.....	.....	.....	7.75	.....	.....	.....	.....	.....	1.75	1.75	3140	42⅞	.....	Sp	Yes
Duer.....	Buses	.....	.....	FF	S B	.....	.....	None	None	4	4.50	None	None	None	4	None	2	None	1.75	1.75	3140	48½	.....	Sp	Yes
Eaton.....**41HB**	Cars	Var	530	½ F	S B	2320	2320	None	None	4.63	4.45	5.0	None	None	4.50	None	1.25	None	1.37	1.75	3140	41	37	Sp	S-A	No
Eaton.....**421R**	Cars	Var	775	½ F	S B	2315	2315	None	None	4.72	3.86	4.15	None	None	4.24	None	1.50	None	1.50	2.00	Mo1	42	.....	T A	T A	No
Eaton (Torb).....**7502**	Trucks	2700	400	F F	I G	2315	2315	2315	1050	1.83	1.57	2.33	3.43	None	5.00	5½–7	.87	1.00	1.00	1.18	3140	40¼	37½	Sp	Sp	No
Eaton (Torb).....**10000**	Trucks	4200	560	F F	I G	2315	2315	2315	1050	2.00	1.79	1.57	4.00	None	4.50	5½–7	1.00	1.12	1.12	1.18	3140	39¼	37½	Sp	Sp	No
Eaton (Torb).....**15000**	Trucks	6000	680	F F	I G	2315	2315	2315	1050	1.89	1.52	2.10	4.00	None	4.50	5–6	1.25	1.25	1.25	1.37	3140	40	36½	Sp	Sp	No
Eaton (Torb).....**25000**	Trucks	8000	840	F F	I G	2315	2315	2315	1050	1.95	1.70	2.17	4.30	None	4.50	4½–5	1.31	1.62	1.25	1.57	3140	40¼	36⅝	Sp	Sp	No
Eaton (Torb).....**E4**	Trucks	12000	1330	F F	I G	2315	2315	2315	1050	2.11	1.84	2.40	4.84	None	4.00	4–5	1.37	1.81	1.50	1.96	3140	44	39	Sp	Sp	No
Eaton.....**501-R, 502-R**	Trucks	2400	330	½ F	S B	2315	2315	None	None	4.45	4.9	None	None	None	4.78	None	1.25	None	1.25	1.57	Mol	44°	Var	Sp	Sp	No
Eaton.....**1002**	Trucks	4500	460	½ F	S B	2315	2315	None	None	5.30	5.66	None	None	None	4.25	None	1.25	None	1.50	2.00	Mol	40	Var	Sp	Sp	No
Eaton.....**1502**	Trucks	5500	675	½ F	S B	2512	2315	None	None	5.66	6.37	6.62	None	None	....	None	1.25	None	1.37	2.00	Mol	40	Var	Sp	Sp	No
Eaton.....**30000**	Trucks	7000	1000	F F	D R	2512	2315	2315	2315	2.54	None	None	3.20	None	3.70	4.50	1.37	3.00	1.75	1.75	Mol	39½	37½	Sp	Sp	No
Eaton.....**40000-41000**	Trucks	10000	°1300	F F	D R	2512	2315	2315	2315	1.84	2.84	None	2.69	3.20	3.80	4.20	1.62	3.00	2.00	2.00	Mol	44½°	38¾°	Sp	Sp	No
Eaton.....**62000-65000**	B,T	14000	°2000	F F	D R	2512	2315	2315	2315	1.54	2.67	None	2.67	3.40	3.63	4.00	1.75	3.50	2.25	2.25	Mol	45°	42°	Sp	Sp	No
Eaton.....**100000**	Trucks	20000	2850	F F	D R	2315	2315	2315	2315	3.30	None	None	None	3.35	None	3.58	4.00	1.87	3.75	2.75	2.75	Mol	46	44½	Sp	Sp	No
Eaton.....**2002**	Trucks	8000	900	½F	S B	2315	2315	None	None	6.87	7.57°	4.3°	None	None	3.66	None	1.75	None	2	2.75	Mol	40	37	Sp	Sp	No
Eaton.....**2200**	Trucks	7000	900	FF	S B	2315	2315	None	None	6.87	7.57°	4.3°	None	None	3.66	None	1.75	None	1.75	1.75	Mol	40	37	Sp	Sp	No
Eaton.....**2250-2252**	T & Bu	7000	900	FF	S B	2315	2315	None	None	6.87	7.57°	6.12°	None	None	3.66	None	1.75	None	1.75	1.75	Mol	°46½	°37	Sp	Sp	No
Salisbury.....**H**	Cars	2300	Var	½ F	S B	2320	2320	None	None	4.45	4.81	None	None	None	4.80	None	1.12	None	1.22	1.56	5135	42¾	39	Sp	Sp	No
Salisbury.....**F**	Cars	2800	450	½ F	S B	2320	2320	None	None	4.8	None	None	None	None	4.8	None	1.31	None	1.37	1.75	5135	42¾	38	Sp	Sp	No
Salisbury.....**J**	Cars	2000	300	½ F	S B	2315	3115	None	None	4.9	5.1	None	None	None	5.43	None	1.00	None	1.12	1.37	3140	42½	35	Sp	Sp	No
Salisbury.....**D**	Trucks	4000	140	¾ F	S B	2320	2320	None	None	5.85	None	None	None	None	3.40	None	1.50	None	1.50	1.50	3140	41½	38	Sp	Sp	No
Salisbury.....**K**	Cars	2300	.....	½F	S B	2320	2320	None	None	4.45	4.7	4.25	None	None	4.8	None	1.12	None	1.25	1.56	5135	42¾	39	Sp	Sp	No
Salisbury.....**F**	Trucks	4000	Var	½F	S B	2320	2320	None	None	5.1	5.6	None	None	None	4.6	None	1.31	None	1.37	2.0	5135	42¾	38	Sp	Sp	No
Salisbury.....**L**	Cars	2200	Var	½F	Hyp	2315	2315	None	None	5.1	4.7	None	None	None	5.1	None	1.12	None	1.12	1.37	2315	40	39	Sp	Sp	No
Timken.....**5214**	Cars	2550	Var	½ F	S B	6115	6115	None	None	4.31	4.67	5.09	None	None	5.00	None	1.25	None	1.37	1.50	3240	41	38	Sp	Opt	No
Timken.....**5716**	Cars	4000	Var	F F	S B	6115	6115	None	None	3.77	4 08	4.58	None	None	4.50	None	1.50	None	1.62	1.62	3240	39	38	Sp	T A	.....
Timken.....**6012**	Cars	.....	.....	½ F	Wo	3120	Bro	None	None	5.25	4.75	5 50	None	None	Spec	None	Spec	None	.....	.....	3240	41	39	Sp	Sp	No
Timken.....**64600D**	Trucks	6500	Var	½ F	Wo	3120	Bro	None	None	6.00	7 75	9.25	None	None	Spec	None	Spec	None	1.75	1.75	3240	39½	38½	Opt	Opt	Yes
Timken.....**65600D**	Trucks	9500	Var	F F	Wo	3120	Bro	None	None	6 0	7.25	9.25	None	None	Spec	None	Spec	None	1.81	1.81	3240	39½	38½	Opt	Opt	Yes
Timken.....**66600D**	Trucks	14000	Var	F F	Wo	3120	Bro	None	None	6.20	8.75	10.33	None	None	Spec	None	Spec	None	2.00	2 00	3240	43¾	42⅜	Opt	Opt	Yes
Timken.....**67600D**	Trucks	18000	Var	F F	Wo	3120	Bro	None	None	8.80	10.25	13.67	None	None	Spec	None	Spec	None	2.62	2.62	3240	46	46	Opt	Opt	Yes
Timken.....**5620**	T & Bu	5500	Var	½ F	S B	6115	6115	None	None	5.50	6.10	4.91	None	None	3.50	None	1.75	None	1.75	2.37	3240	39	39	Sp	Sp	No
Timken.....**65700D**	Trucks	11500	Var	F F	Wo	3120	Bro	None	None	6.00	7.75	10.50	None	None	Spec	None	Spec	None	2.00	2.00	3240	39¾	37½	Opt	Opt	Yes
Timken.....**65220**	Bus	7500	Var	F F	Wo	3120	Bro	None	None	5.00	6.00	7.00	None	None	Spec	None	Spec	None	1.90	1.90	3240	50	49	Opt	Opt	Yes
Timken.....**5370**		3000	Var	½F	H B	6115	6115	None	None	4.56	5.86	6.83	None	None	Spec	None	1.37	None	1.25	1.25	3240	39	39	.....	.....	No
Timken.....**68700**	Trucks	.....	Var	FF	Wo	.....	.....	None	None	.....	.....	.....	None	None	.....	None	.....	None	2.31	2.31	3240	.....	.....	.....	.....	.....
U. S......**10000**	Cars	2600	150	½ F	S B	2315	2315	None	None	4.38	4.80	None	None	None	5.00	None	.....	None	1.25	1.56	Spec	40	30	Opt	Opt	No
Vig-Tor.....**305**	C & T	2100	100	½ F	S B	2315	1020	None	None	4.90	3.77	5.45	None	None	5.00	None	1.25	None	1.12	1.56	3140	40½	37½	S-A	S-A	Opt
Vig-Tor.....**307**	C & T	3000	120	½ F	S B	2315	2315	None	None	4.45	3.77	6.13	None	None	4.25	None	1.31	None	1.37	1.75	3140	40½	37	S-A	S-A	Opt
Vig-Tor.....**425**	T & Bu	9000	200	F F	I G	2315	2315	2315	1020	1.00	None	None	9.41	5.40	3.50	5–7	1.00	1.75	1.37	1.37	3140	40	37	Sp	Sp	Opt
																						52	39	T A	T A	
Vulcan.....**3R**	Trucks	6500	6000	F F	Wo	.....	.....	.....	.....	7.75	5.20	.....	6.50	9.66	....	None	....	None	1.81	1.81	3140	40	36	Sp	Sp	Yes
Vulcan.....**4R**	Trucks	10500	9000	F F	Wo	3120	Bro	None	None	7.75	6.80	8.56	None	None	....	None	....	None	2.06	2.06	3140	40	36	Sp	Sp	Yes
Wisconsin.....**820-G-H**	Trucks	°5500	Var	½ F	Wo	Spec	Bro	None	None	Var	Var.	Var.	None	None	Spec	None	Spec	None	1.87	2.56	3140	40	38	Sp	Sp	No
Wisconsin.....**860**	Trucks	8000	Var	F F	Wo	Spec	Spec	None	None	7.75	8.66	9.66	None	None	Spec	None	Spec	None	2.00	2.00	....	40	38	Sp	Sp	No
Wisconsin.....**470**	T & Bu	6000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.00	.....	4.60	7.25	3.00	4–5	1.37	1.75	1.87	1.87	3140	40	36	Sp	Sp	No
Wisconsin.....**42**	T & Bu	6000	Var	½ F	D R	2512	2315	2512	Spec	2.30	2.00	.....	4.60	7.25	3.00	4–5	1.37	1.75	1.87	2.55	3140	40	36	Sp	Sp	.....
Wisconsin.....**1700**	Trucks	18000	Var	F F	D R	2512	2512	2512	Spec	2.40	2.00	.....	10.00	9.00	2.75	3–4	2.25	2.75	2.75	2.75	3140	46	40¾	Sp	Sp	No
Wisconsin.....**1000F**	Trucks	18000	Var	F F	Wo	Spec	Spec	None	None	10,30	11.75	None	None	None	Spec	None	Spec	None	2.75	2.75	3140	48	40¾	Sp	Sp	No
Wisconsin.....**67-B-C**	Buses	9000	Var	½ F	D R	2512	2315	2512	Spec	2.30	2.00	1.75	4.42	5.30	3.00	4–5	1.37	2.25	2.00	2.75	3140	48	38	Sp	Sp	No
Wisconsin.....**70-A**	T & Bu	7300	Var	½ F	D R	2512	2315	2512	Spec	2.30	2.00	.....	5.30	9.20	3.00	4–5	1.37	2.25	2.00	2.50	3140	40	38	Sp	Sp	No
Wisconsin..**67010-67310**	Buses	10000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.00	1.75	4.42	7.00	3.00	4–5	1.60	2.25	2.00	2.00	3140	43	38	Sp	Sp	No
													5.30													
Wisconsin..**67410-67510**	Buses	10000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.09	1.75	4.40	7.00	3.00	4–5	1.60	2.25	2.00	2.00	3140	50	46	Sp	Sp	.....
													5.30													
Wisconsin.....**9000-CA**	Trucks	11000	Var	F F	Wo	Spec	Spec	None	None	8.67	9.67	7.75	None	None	...	.....	.....	.....	2.00	2.00	3140	41	38½	Sp	Sp	No
Wisconsin.....**1310-K**	T & Bu	14000	Var	F F	D R	2512	2512	2512	Spec	1.5	....	None	5	4	3	4–5	1.6	2.5	2.25	2.25	3140	50⅝	45	Sp	Sp	No
Wisconsin.....**150**	T & Bu	14000	Var	FF	S B	2512	2512	None	None	4.4	4.36	3.3	None	None	2.75	None	2.5	None	2.25	2.25	3140	44	39	Sp	Sp	.....
Wisconsin.....**1250-K**	T & Bu	14000	Var	FF	D R	2512	2512	2512	Spec	2.4	2.00	....	8	5	2.75	4–5	2	2.75	2.25	2.25	3140	44	39	Sp	Sp	.....
Wisconsin.....**1260-K**	T & Bu	14000	Var	F F	D R	2512	2512	2512	Spec	2.40	2.00	None	8.0	5	2.75	4–5	2.00	2.75	2.20	2.25	3140	50⅝	45	Sp	Sp	No
Wisconsin...**900-EF-DF**	Trucks	14000	Var	F F	Wo	Spec	Spec	None	None	9.0	10.0	11.67	None	None	.....	.....	.....	.....	2.25	2.25	3140	44½	38½	Sp	Sp	No
Wisconsin....**1400, 1450**	Trucks	14000	Var	F F	D R	2512	2512	2512	Spec	2.4	.....	.....	9	8	2.75	3–4	2	2.75	2.25	2.25	3140	44½	38½	Sp	Sp	.....
Wisconsin.....**6600**	Trucks	9000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.00	None	7.10	9.20	3.50	4.50	1.37	1.75	2.00	2.00	3140	40	38	Sp	Sp	No
Wisconsin. **8800-8800-B**	Trucks	10000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.00	None	8.66	9.40	3.50	4.50	1.37	2.25	2.00	2.00	3140	41	38½	Sp	Sp	No
Wisconsin.....**13210-K**	Buses	12000	Var	F F	D R	2512	2315	2512	Spec	2.30	2.00	None	6.00	8.60	3.50	4.50	1.37	2.25	2.26	2.25	3140	50	45	S-A	S-A	No
Wisconsin.....**4600**	T & Bu	7000	Var	FF	D R	2512	2512	2512	Spec	2.3	.....	.....	5.5	6	3	4–5	1.6	2.00	1.87	1.87	3140	40	36	Sp	Sp	.....

ABBREVIATIONS:
§—Gear Manufacturers
A A—Above Axle
B—Bevel
B A—Below Axle
B-L—Brown-Lipe
B-L-C—Brown-Lipe-Chapin
B-R—Ball and Roller
Bro—Bronze
Bu—Buses
C—Cars
CS—Cast Steel
D R—Double Reduction
Ext D S—External Driveshaft
Ext Rw—External Rear Wheels
F F—Full Floating
½ F—Semi-Floating
¾ F—Three-quarter Floating
H B—Helical Bevel
Hyp—Hypoid
Hyd—Hydraulic Brakes
I F—Inside of Frame

Rear Axles

Designed for Hotchkiss Drive?	Location of Spring Pads	DIFFERENTIAL: Make	DIFFERENTIAL: Type	DIFFERENTIAL: Number of Pinions	SERVICE BRAKE: Type and Location	SERVICE BRAKE: Diameter of Drum (Ins.)	SERVICE BRAKE: Lining: Width (Ins.)	SERVICE BRAKE: Lining: Thickness (Ins.)	EMERGENCY BRAKE: Type and Location	EMERGENCY BRAKE: Diameter of Drum (Ins.)	EMERGENCY BRAKE: Lining: Width (Ins.)	EMERGENCY BRAKE: Lining: Thickness (Ins.)	Location of Brake Shaft Arms	BEARINGS: First Reduction Pinion	BEARINGS: Final Reduction Pinion	BEARINGS: At Differential	BEARINGS: At Wheels	BEARINGS: On Pinion Shaft	Axle Housing Material (S.A.E. No.)	Minimum Road Clearance With Regular Tire Size (Ins.)	Tread (Ins.)	Weight (Lbs.)	Recommended Lubricant	MAKE AND MODEL
Yes	B A	New P	B	2	Ext-Rw	11	2	1/2	Int-Rw	11	1 3/4	3/32	Hyd	Roller	None	Ball	Roller	Roller	Ma I				No. F	Adams 75002
Yes	B A	New P	B	2									Hyd		None	Roller	Roller	Ball	Ma I		57		No. F	Adams 75100
Yes	A A	Frost	B	4	Int-Rw	16	2	1/16	Int-Rw	16	2	3/16	I F		None	Roller	Roller	Ball	C S	9 -32	56	359	Oil	Clark B-365
Yes	A A	B-L-C	B	4	Int-Rw	16	2 1/4	1/16	Int-Rw	16	2 1/4	1/16	I F		None	Roller	Roller	Ball	C S	9 1/2 -34	57 1/4	437	Oil	Clark B-501
Yes	A A	Own	B	4	Int-Rw	17 1/2	2 1/2	1/16	Int-Rw	17 1/2	2 1/2	1/16	I F		None	Roller	Roller	Ball	C S	8 3/4 -36	60 3/4	716	Oil	Clark B-720
Yes	A A	Own	B	4	Int-Rw	17 1/2	2 1/2	1/16	Int-Rw	17 1/2	2 1/2	1/16	I F		None	Roller	Roller	Ball	C S	8 3/4 -36	72	761	Oil	Clark B-720 Bus
Yes	Opt	B-L-C	B	4	Ext-Rw	14	2	3/32	Int-Rw Ext-D S‡	14	1 3/4	3/32	Opt	Roller	None	Roller	Roller	Roller	Spec	11 -32	56	240	Oil	Columbia 12000
Yes	Opt	New P	B	2	Rw	14°	1 3/4	3/32	None	No	No	No	Opt		None	Roller	Roller	Roller	Spec		56-58	140	Oil	Columbia 13000
Yes	Opt	B-L-C	B	4	Ext-Rw	16	2 1/2	3/32	Int-Rw Ext-D S‡	16	2 1/4	3/32	Opt	Roller	None	Roller	Roller	Roller	Spec	10 -32	56	270	Oil	Columbia 33000
Yes	Opt	B-L-C	B	4	Ext-Rw	16	2 1/2	1/4	Int-Rw Ext-D S‡	16	2 1/4	3/32	Opt	Roller	None	Roller	Roller	Roller	Spec	10 -34	58	320	Oil	Columbia 53000
Yes	A A	Own	B	4	Ext-Rw	18	3	1/4	Int-Rw	17 1/4	2 3/4	1/4	IF	Ball		Roller	Roller	Ball	1235	10 1/4 -36	58 1/4	275	Oil	Duer
Yes	B A	Own	B	4	Ext-Rw	18	3	1/4	Int-Rw	17 1/4	2 3/4	1/4	I F	Ball	None	Roller	Roller	Ball	1235	10 1/4 -36	68-70	275	Oil	Duer
Yes	Opt	B-L	B	4	Ext-Rw	14 3/8	2	1/16	None				No	Ball	None	Roller	Roller	Ball	Steel	9 3/8 -32	56	Var	Oil	Eaton 41HB
Yes	B A	B-L	B	4	Int-Rw	15 5/8	2	1/16	None				I F	Roller	Roller	Roller	Ball	Roller	Steel	9 1/4 -33	58 1/2	335	Oil	Eaton 421R
Yes	A A	Frost	B	4	Ext-Rw	14	2 1/2	3/32	Int-Rw	13 5/8	2	3/32	I F	Roller	Roller	Roller	Roller	Roller	1040	11 1/16 -32	56	285	Oil	Eaton (Torb) 7502
Yes	A A	Frost	B	4	Ext-Rw	15	2 1/2	3/32	Int-Rw	14 5/8	2 1/4	3/32	I F	Roller	Roller	Roller	Roller	Roller	1040	12 1/16 -34	56	385		Eaton (Torb) 10000
Yes	A A		B	4	Int-Rw	18	2 1/2	1/4	Int-Rw	18	1 3/4	1/4	I F	Roller	Ball	Roller	Roller	Roller	1040	12 3/4 -36	57 5/8	560	Oil	Eaton (Torb) 15000
Yes	A A		B	4	Int-Rw	20	2 1/2	1/4	Int-Rw	20	1 3/4	1/4	I F	Roller	Ball	Roller	Roller	Roller	1040	12 -36	60 1/2	720	Oil	Eaton (Torb) 25000
Yes	A A		B	4	Int-Rw	19	3 1/2	1/16	Ext-D S	10	4 1/2	1/16	I F	Roller	Ball	Roller	Roller	Roller	1040	12 3/16 -36	67 1/2	1100	Oil	Eaton (Torb) E4
Yes	Opt	B-L	B	2	Int-Rw	13 5/8	2	3/32	None	No	No	No	I F	Ball	None	Roller	Roller	Ball	Ma I	8 1/4 -	56	Var	Oil	Eaton 501-R, 502-R
Yes	Opt	B-L	B	4	Ext-Rw	14	2 1/2	3/32	Int-Rw	13 5/8	2	3/32	I F	Ball	None	Roller	Roller	Ball	Ma I	8 3/4 -32	56	Var	Oil	Eaton 1002
Yes	A A	B-L	B	4	Int-Rw	16	2 1/4	1/16	Int-Rw	15 5/8	2 1/4	1/16	I F	Ball	None	Roller	Roller	Ball	Ma I	10 3/8 -36	58	Var	Oil	Eaton 1502
Yes	A A	Frost	B	4	Int-Rw	16 7/8	3 1/2	1/16	None	No	No	No	I F	Ball	Ball	Ball	Roller	Ball	Ma I	10 3/8 -34	57 1/2		Oil	Eaton 30000
Yes	Opt	Frost	B	4	Int-Rw	16 7/8	°4 1/2	1/4	None	No	No	No	I F	Ball	Ball	Ball	Roller	Ball	Ma I	°10 3/8 -34	Var		Oil	Eaton 40000-41000
Yes	Opt	Frost	B	4	Int-Rw	20	5	1/4	None	No	No	No	I F	Ball	Ball	Ball	Roller	Ball	Ma I	11 -38	67 5/8		Oil	Eaton 62000-65000
Yes	Opt	Frost	B	4	Int-Rw	24	4 1/2	1/4	None	No	No	No	I F	Ball	Ball	Ball	Roller	Ball	Ma I	11 -40	70		Oil	Eaton 100000
Yes	Opt	Opt	B	4	Int-Rw	16 7/8	3	1/4	Int-Rw	16 7/8	2	1/4	I F	Ball	None	Roller	Roller	Ball	Ma I	8 1/2 -34	58 3/8		Oil	Eaton 2002
Yes	Opt	Opt	B	4	Int-Rw	16 7/8	2 1/4	1/4	Int-Rw	16 7/8	2 1/4	1/4	I F	Ball	None	Roller	Roller	Ball	Ma I	8 1/2 -34	57 7/8		Oil	Eaton 2200
Yes	Opt	Opt	B	4	Int-Rw	16 7/8	°4 1/2	1/4	None	No	No	No	I F	Ball	None	Roller	Roller	Ball	Ma I	8 1/2 -34	°57 7/8		Oil	Eaton 2250-2252
Yes	B A	B-L-C	B	2	Ext-Rw	12	1 3/4	1/16	None	No	No	No	O F	Roller	None	Roller	Roller	Roller	1015	10 -32	56	165	Oil	Salisbury H
Yes	B A	B-L-C	B	2	Ext-Rw	14	2	1/16	None	No	No	No	Hyd	Ball	None	Roller	Roller	Ball	1015	9 1/2 -32	56 1/2	196	Oil	Salisbury F
Yes	B A	New P	B	2	Ext-Rw	12	1 1/2	1/16	None	No	No	No	Hyd	Ball	None	Roller	Roller	Ball	1015	9 1/16 -30	56	137	Oil	Salisbury J
Yes	Opt	B-L-C	B	4	Ext-Rw	16 3/8	2	1/16	Int-Rw	16	2	1/16	Opt	Ball	None	Roller	B-R	Ball	1030	9 1/16 -34	56	370	Oil	Salisbury D
Yes	B A	New P°	B	2	Ext-Rw	12	1 3/4	1/16	None	No	No	No	Hyd	Ball	None	Roller	Roller	Ball	1015	10 -32	56 3/8	165	Oil	Salisbuty K
Yes	Opt	Warren	B	2	Ext-Rw	14 3/8	2 1/2	1/16	Int-Rw	14	2 1/2	1/16	Opt	Ball	None	Roller	Roller	Ball	1015	9 1/2 -32	56 1/2	290	Oil	Salisbury F
Yes	B A	Warren	Hyp	2	Int-Rw	12	1 3/4	1/16	None	No	No	No	Opt	Ball	None	Ball	Roller	Ball	1015	10 -32	54	165	Oil	Salisbury L
Yes	Opt	Own	B	4	Ext-Rw	14 3/8	2	1/16	Int-Rw	13 5/8	1 3/4	1/16	I F	Roller	None	Roller	Roller	Roller	1010	9 1/2 -32	56	225	Spec	Timken 5214
No	Opt	Own	B	4	Ext-Rw	16	2 1/2	1/16	Int-Rw	15 5/8	2 1/2	1/16	I F	Roller	None	Roller	Roller	Roller	1010	10 -34	56	335	Spec	Timken 5716
Yes	B A	Own	B	4	Int-Rw	16	2	1/4	None	No	No	No	I F	Roller	None	Roller	Roller	Roller			58 3/16		Spec	Timken 6012
Yes	Opt	Own	B	4	Int-Rw	16	3 1/4	1/4	Int-Rw	16	3 1/4	1/4	I F	Roller	None	Roller	Roller	Roller			60	697	Spec	Timken 64600-D
Yes	Opt	Own	B	4	Int-Rw	18	3 1/2	1/4	Int-Rw	18	3 1/2	1/4	I F	Roller	None	Roller	Roller	Roller			58 1/2	850	Spec	Timken 65600-D
Yes	Opt	Own	B	4	Int-Rw	21	3	1/4	Int-Rw	21	3	1/4	I F	Roller	None	Roller	Roller	Roller	1010		65 3/4	1275	Spec	Timken 66600-D
Yes	Opt	Own	B	4	Int-Rw	24	4	1/4	Int-Rw	24	4	1/4	I F	Roller	None	Roller	Roller	Roller	1010		69 3/4	1715	Spec	Timken 67600-D
Yes	Opt	Own	B	4	Int-Rw	16	2 1/4	1/16	Ext-DS§				I F	Roller	None	Roller	Roller	Roller	1010	9 -34	56	450	Spec	Timken 5620
Yes	Opt	Own	B	4	Int-Rw	21	3 3/4	1/4	Int-Rw	21	3 3/4	1/4	I F	Roller	None	Roller	Roller	Roller			63	1150	Spec	Timken 65700-D
Yes	Opt	Own	B	4	Int-Rw	17 1/4	3 1/2	1/4	Ext-DS§				I F	Roller	None	Roller	Roller	Roller	1010	6 1/16 -32	72	950	Spec	Timken 65220
Yes	A A	Own	B		Int-Rw	15 1/16	2 1/4	1/4	Int-Rw	15 1/16	2 1/4	1/4	I F	Roller	None	Roller	Roller	Roller			56 1/2	375	Spec	Timken 5370
		Own	B	4	Int-Rw									Roller	None	Roller	Roller	Roller					Spec	Timken 68700
Yes	B A	B-L	B	4	Int-Rw	14	1 3/4	3/16	Int-Rw	14	1	3/16	I F	Roller	None	Roller	Roller	Roller	1020	10 -32	56	250	No. F	U. S. 10000
Opt	Opt	Van-Dorn	B	2	Int-D S	9	3	1/16	Int-Rw	10 5/8	1 3/4	1/16	Opt	Ball	None	Roller	Roller	Roller	Steel	10 -33	56	225	Oil	Vig-Tor 305
Opt	Opt	Van-Dorn	B	4	Int-D S	9 1/2	3	1/16	Int-Rw	14	2	1/16	Opt	Ball	None	Roller	Roller	Roller	Steel	10 -34	56	300	Oil	Vig-Tor 307
Opt	Opt	Own	B	4	Int-D S	9	4 1/2	1/16	Int-D S	18	3	1/4	Opt	Roller	Roller	Roller	Roller	Roller	1045	13 -36	60*	750	Oil	Vig-Tor 425
	A A	Own	B	4	Int-Rw	18	2	1/4	Int-Rw	18	2	1/4	I F	Ball	None	Roller	Roller		C S	12 -34	58	700	Oil	Vulcan 3R
Yes	A A	Own	B	4	Int-Rw	20	2	1/4	Int-Rw	20	2	1/4	I F	Ball	Ball	Roller	Roller		C S	11 -36	56 1/2	850	Oil	Vulcan 4R
Yes		Own	B	4	Int-Rw	17	3	1/16	Int-Rw	12 1/4	2 1/2	3/16	I F		None	Ball	Roller	B-R	Ma I	11 36	57 1/2	°600	Oil	Wisconsin 820G&H
Yes		Own	B	4	Int-Rw	17	3	1/16	Int-Rw	12 1/4	2 1/2	3/16	I F		None	Ball	Roller	B-R	Ma I	10 1/2 -36	58	690	Oil	Wisconsin 860
Yes	Opt	Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	2 1/2	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 1/2	525	Oil	Wisconsin 470
Yes	Opt	Own	B	4	Int-Rw	17	3	1/16	Int-Rw	12 1/4	2 1/2	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 1/2	475	Oil	Wisconsin 42
Yes		Own	B	4	Int-Rw	20	4 1/2	1/4	Int-Rw	15 1/16	3	1/16	I F	Ball	Roller	Ball	Roller	Ball	Ma I	11 -42	71	1450	Oil	Wisconsin 1700
Yes	A A	Own		4	Int-Rw	24	3 1/2	1/16	Int-Rw	18 1/2	3 1/2	1/16	I F	Ball		Ball			Ma I	11 -42	70	1400	Oil	Wisconsin 1000F
Yes	Opt	Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	2 1/2	1/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 1/2 66	690	Oil	Wisconsin 67-B-C
Yes	Opt	Own	B	4	Int-Rw	17	3	3/16	Int-Rw	12 1/2	2 1/4	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 1/2 66	690	Oil	Wisconsin 70-A
Yes	Opt	Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	2 1/2	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 1/2 66	750	Oil	Wisconsin 67010-67310
Yes	Opt	Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	2 1/2	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	71 3/4 68	720	Oil	Wisconsin 67410-67510
Yes		Own	B	4	Int-Rw	20	3	1/4	Int-Rw	15 1/16	2 1/2	3/16	I F	Ball	None	Ball	Roller	B-R	Ma I	12 -40	59 1/2	850	Oil	Wisconsin 9000
Yes		Own	B	4	Int-Rw	20	4 1/2	1/4	Int-Rw	15 1/16	3	1/16	I F	Ball	Ball	Ball	Roller	Ball	Ma I	12 -38	75 3/4	1100	Oil	Wisconsin 1310-K
Yes	Opt	Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	3	1/16	I F	Roller	None	Roller	Roller	Roller	Ma I	9 -34	68	1200	Oil	Wisconsin 150
Yes		Own	B	4	Int-Rw	18	4	1/4	Int-Rw	13 1/2	3	1/16	I F	Ball	Ball	Ball	Roller	Ball	Ma I	9 -34	68	1100	Oil	Wisconsin 1250-K
Yes	Opt	Own	B	4	Int-Rw	20	4 1/2	1/4	Int-Rw	15 1/16	3	1/16	I F	Ball	Ball	Ball	Roller	Ball	Ma I	9 -34	76	1200	Oil	Wisconsin 1260-K
Yes		Own	B	4	Int-Rw	20	3	1/4	Int-Rw	15 1/16	2 1/2	1/16	I F	Ball	None	Ball	Roller	B-R	Ma I	12 -40	60-64	1000	Oil	Wisconsin 900-DF-EF
Yes		Own	B	4	Int-Rw	20	3	1/4	Int-Rw	15 1/16	2 1/2	1/16	I F	Ball	Roller	Ball	Roller	Ball	Ma I	12 -40	60-64	1000	Oil	Wisconsin 1400, 1450
Yes	A A	Own	B	4	Int-Rw	17	3	3/16	Int-Rw	12 1/4	2 1/2	3/16	I F	Ball	Roller	B-R	Roller	Ball	Ma I	11 -36	57 5/8	660	Oil	Wisconsin 6600
Yes	A A	Own	B	4	Int-Rw	20	3	3/16	Int-Rw	15 1/16	2 1/2	1/16	I F	Ball	Roller	Ball	Roller	Ball	Ma I	12 -40	59 1/2	900	Oil	Wisconsin 8800-8800-B
Yes	Opt	Own	B	4	Int-Rw	20	4 1/2	1/16	Int-Rw	15 1/16	3	1/16	I F	Ball	Roller	Ball	Roller	Ball	Ma I	13 -40	73	1000	Oil	Wisconsin 13210-K
Yes		Own	B	4	Int-Rw	17	3	3/16	Int-Rw	12 1/4	2 1/2	1/16	I F	Ball	Roller	Ball	Roller	Ball	Ma I	11 -36	57 1/2	525	Oil	Wisconsin 4600

I G—Internal Gear
Int Rw—Internal Rear Wheels
Int D S—Internal Driveshaft
Ma I—Malleable Iron
Mol—Molybdenum

New P—New Process
No. F—Non-Fluid
OF—Outside of Frame
Opt—Optional
S-A—Springs and Torque Arm

S B—Spiral Bevel
Sp—Springs
Spec—Special
T—Trucks
T A—Torque Arm

Var—Variable
Wo—Worm
*—Optional
‡—When used with four wheel brakes
°—Others Also

American Stock Gearsets

MAKE AND MODEL	Designed for	Maximum Engine Torque (Lbs. Ft.)	Type	BEARINGS: Main Shaft	BEARINGS: Pilot	BEARINGS: Secondary Shaft	Inside Distance Between Bearings on Main Shaft (Ins.)	Distance Between Center Lines of Main and Secondary Shafts (Ins.)	Number of Forward Speeds	Type of Direct Drive Clutch	WIDTH OF GEAR FACES (In.): Constant Mesh Set	Low	Second	Third	Fourth	Reverse	Housing Material	Shaft Material (S.A.E. Number)	Gear Material (S.A.E. Number)	Gear Teeth Pitch	Direct Drive On	GEAR RATIOS: Low	Second	Third	Fourth	Reverse	Gearset Location	Control Location	Sold With Clutch?	Standard S.A.E. Gearshift	WEIGHT (Lbs.): Cast Iron	Aluminum	Recommended Type of Lubricant	MAKE AND MODEL
Brown-Lipe 20B	C, T	85	Clash	Roller	Roller	Roller			3	GeT	5/8	5/8	5/8	Dir	None	5/8	CI & Al	ChS	2320	6-8	3	3.34	1.66	1.00	None	4.17	Eng	Ce	Opt	Yes		98	Oil	Brown-Lipe 20B
Brown-Lipe 30, 30A	C, T	135	Clash	Roller	Roller	Ball			3	GeT	5/8	3/4	3/4	Dir	None	3/4	CI & Al	ChS	2320	6-8	3	°3.33	1.68	1.00	None	°5.00	Eng	Ce	Opt	Yes	142	°95	Oil	Brown-Lipe 30, 30A
Brown-Lipe 31	Trucks	180	Clash	Roller	Roller	Roller			3	GeT	5/8	3/4	3/4	Dir	None	3/4	CI & Al	ChS	2320	6-8	3	4.80	2.25	1.00	None	6.00	Eng	Ce	Opt	Yes			Oil	Brown-Lipe 31
Brown-Lipe 35	C, T	180	Clash	Roller	Roller	Roller			4	GeT	5/8	3/4	3/4	3/4	3/4		CI & Al	ChS	2320	6-8	3, 4	°5.35	°2.84	°1.76	°1.00	°6.25	E-A	Ce	Opt	Yes	198	150	Oil	Brown-Lipe 35
Brown-Lipe 51	T, B	210	Clash	Roller	Roller	Roller			4	GeT	7/8	1 3/8	1	1	1	1 1/16	CI & Al	ChS	2320	6-8	3, 4	°3.29	°1.61	°1.00	° .78	°3.94	E-A	Ce	Opt	Yes		196	Oil	Brown-Lipe 51
Brown-Lipe 55	T, B, Tr	250	Clash	Roller	Roller	Roller			4, 7	GeT	3/4	1 3/8	1	7/8	7/8	1 1/8	CI & Al	ChS	2320	5-7	°3	°3.95	°1.89	°1.00	° .78	°4.75	E-A°	Ce	Opt	°225		Oil	Brown-Lipe 55
Brown-Lipe 60	T, B, Tr	275	Clash	Roller	Roller	Roller			4	GeT	1 1/4	1 1/2	1 1/2	°1 1/2	°2 1/2	1 3/8	CI & Al	ChS	2320	5-7	3, 4	°5.35	°2.84	°1.76	°1.00	°6.43	SeU	Ce	Opt	Yes	250		Oil	Brown-Lipe 60
Brown-Lipe 60	T, Tr	275	Clash	Roller	Roller	Roller			3	GeT	1 1/4	1 1/2	1 1/2	Dir	None	1 1/2	Alum	ChS	2320	5-7	3	4.00	1.76	1.00	None	4.90	Eng	Ce	Opt	Yes		189	Oil	Brown-Lipe 60
Brown-Lipe 60**	Trucks	292	Clash	Roller	Roller	Roller			3	GeT	1 1/4	1 1/2	Dir	1 1/2	None		CI & Al	ChS	2320	5-7	2	2.25	1.00	.67	None	None	SeU	Ce	Opt	Yes			Oil	Brown-Lipe 60**
Brown-Lipe 60‡	Buses	275	Clash	Roller	Roller	Roller			4	GeT	1 1/4	1 1/2	1 1/2	1 1/2	Dir	1 3/8	Alum	ChS	2320	5-7	4	4.00	2.84	1.50	1.00	4.81	SeU	C-S	Opt	Yes			Oil	Brown-Lipe 60‡
Brown-Lipe 60	Trucks	275	Clash	B & R	Roller	Roller			7	GeT	1 1/4	1 1/2	1 1/2	Dir	1 1/2	1 3/8	Cast I	2320	2320	5-7	6	9.50	4.53	3.38	2.22	3.97 11.18	SeU	Ce	Opt	Yes			Oil	Brown-Lipe 60
Brown-Lipe 70	Trucks	375	Clash	Roller	Roller	Ball			6	GeT	1 1/4	1 1/2	1 1/2	Dir	1 1/2	1 1/2	Cast I	2320	2320	5-7	6	9.4	4.46	3.52	2.06	4.19 11.19	SeU	Ce	Opt	Yes			Oil	Brown-Lipe 70
§Campbell G25	T, B	Var	Ind C	Roller	Roller	Roller	13	4.83	4	Spec	1 1/4	1 3/4	1 3/4	1 3/4	Dir	1	Opt	6150	2350	6-P	4	5.36	2.93	1.80	1.00	5.47	E-A	Ce	No	Yes			Oil	Campbell G25§
§Campbell D-21	C, T, B	Var	Ind C	Ball	Roller	Plain	12.00	3.83	3	Spec	Non	3/4	3/4	3/4	None	3/4	Cast I	2350	2350	6-P	1	3.87	1.71	1.00	None	3.85	E-A	Ce	No		60	†65	Oil	Campbell D-21§
Cotta 55-S	T & B		Ind C	Ball	Ball	Ball	11.37	5.4	5	Jaw	1 1/8	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Alum	2340	2315	5-7	5	8.31	4.37	2.80	1.36	5.38°	E-A	Ce	No	No			No F	Cotta 55-S
Cotta 12	T, Tr		Ind C	Ball	Plain	Ball	12.43	5.55	3	Jaw	1 1/2	1 1/2	1 1/2	1 1/2	None	1 1/2		2340	2340	4 1/4x5 1/2	3	4.51	1.81	1.00	None	6.00	SeU	Ce		Yes			No F	Cotta Gear 12
Cotta A-AAU	T, B	125	Ind C	Ball	Ball	Ball	12.50	4.50	4*	Jaw	3/4	3/4	3/4	3/4	3/4	3/4	S St	3120	3120	6-8	4	5.20	3.68	1.86	1.00	4.66	E-A	Ce	Opt	Yes	160†		No F	Cotta Trans. A-AAU
Cotta R&RU	T, B	200	Ind C	Ball	Ball	Ball	14.50	4.90	4*	Jaw	1	1	1	1	1	1	S St	3120	3120	5 1/2-7 1/2	4	5.20	3.68	1.86	1.00	4.66	E-A	Ce	Opt	Yes	225†		No F	Cotta Trans. R&RU
Cotta S&SU	T, B	290	Ind C	Ball	Ball	Ball	16.50	5.40	4*	Jaw	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	S St	3120	3120	5-7	4	5.20	3.68	1.86	1.00	4.66	E-A	Ce	Opt	Yes	300†		No F	Cotta Trans. S&SU
Cotta T	T, B	375	Ind C	Ball	Ball	Ball	18.50	6.00	4	Jaw	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	S St	3120	3120	4 1/2-6	4	5.20	3.68	1.86	1.00	4.66	E-A	C-S	Opt	Yes	335†		No F	Cotta Trans. T
Cotta TS	T, B, Tr	375	Ind C	Ball	Ball	Ball	7.18	°5.40	2	Jaw	°1 1/4	1 1/4	1 1/4	None	None	None	S St	3120	3120	5-7°	2	2.00	1.00	None	None	None	SeU	Ce	Opt	Yes	165†		No F	Cotta Trans. TS
Cotta FA	T, RC, Tr	500	Ind C	Ball	Ball	Ball	16.00	6.00	3	Jaw	2	2	2	2	None	2	S St	3120	3120	4 1/2-6	3	4.00	2.00	1.00	None	4.12	SeU	C-S	Opt	Yes	400†		No F	Cotta Trans. FA
Covert JUC	C, T	122	Ind C	Ball	Opt	Opt	6.56	3.75	3	GeT	3/4	11/16	11/16	11/16	None	11/16	Cast I	2320	2320	6-8	3	3.62	1.91	1.00	None	4.46	Eng	Ce	Yes	Yes	155		Oil	Covert JUC
Covert RA3	Trucks	184	Ind C	Ball	Roller	Ball	8.37	4.50	3	GeT	1	1	1	1	None	11/16	Cast I	2320	2320	6-8	3	3.67	1.60	1.00	None	4.37	SeU	Ce	No	Yes	140		Oil	Covert RA3
Covert RU3C	Trucks	184	Ind C	Ball	Roller	Ball	8.37	4.50	3	Jaw	1	1	1	1	None	11/16	Cast I	2320	2320	6-8	3	3.67	1.60	1.00	None	4.37	Eng	Ce	Yes	Yes	210		Oil	Covert RU3C
Covert RAD4	Trucks	184	Ind C	Ball	Roller	Ball	11.37	4.50	4	GeT	1	1 1/4	1	1	1	1 1/16	Cast I	2320	2320	6-8	4	5.20	2.70	1.60	1.00	7.30	SeU	Opt	No	Yes	180		Oil	Covert RAD4
Covert RUP4C	Trucks	184	Ind C	Ball	Roller	Ball	11.37	4.50	4	Jaw	11/16	1 1/4	1	11/16	Dir	1 1/16	Cast I	2320	2320	6-8	4	5.20	2.70	1.60	1.00	7.30	Eng	Ce	Yes	Yes	280		Oil	Covert RUP4C
Covert SB	Trucks	250	Clash	Ball	Roller	Ball	13.12	5.20	4	GeT	1 3/8	1 1/16	1 1/4	1 3/8	1 1/4	1 1/16	Cast I	2320	2320	5-7	4	5.07	3.04	1.63	1.00	6.76	SeU	Opt	No	Yes	245		Oil	Covert SB
Covert TN	Tr, B & T	280	Clash	Ball	Roller	Ball	14 5/16	6.00	4	GeT	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/16 1 3/8	Cast I	2320	2320	5-7	4	5.44	2.85	1.79	1.00	6.80	SeU		No	Yes	332		Oil	Covert TN
Detroit CN	Cars	90	Clash	Roller	Plain	Plain	5.00	2.75	3	GeT	1/8	1/2	5/8	3/8	None	1/2	Cast I	Spec	Spec	8-10	3	3.38	1.61	1.00	None	4.16	Eng	Ce	No	Yes	°50		Oil	Detroit CN
Detroit HS	Cars	125	Clash	B & R	Roller	Roller	6.00	3.35	3	GeT	1/8	11/16	3/4	1/8	None	11/16	Cast I	Spec	Spec	°7-9	3	3.34	1.69	1.00	None	4.16	Eng	Ce	No	Yes	°56		Oil	Detroit HS
Detroit HS-A	Cars	135	Clash	B & R	Roller	Plain	6.00	3.35	3	GeT	1/8	11/16	3/4	1/8	None	11/16	Cast I	Spec	Spec	°7-9	3	3.11	1.69	1.00	None	3.76	Eng	Ce	No	Yes	°90		Oil	Detroit HS-A
Detroit HR	Cars	160	Clash	B & R	Roller	Plain	6.00	3.35	3	GeT	5/8	11/16	3/4	7/16	None	11/16	Cast I	Spec	Spec	°7-9	3	3.11	1 69	1.00	None	3.76	Eng	Ce	No	Yes	58°		Oil	Detroit HR
Detroit R	T, B	200	Clash	Ball	Roller	Ball	9.87	4.42	4	GeT	7/8	1	1	1 or 1/16	1 or 9/16	1	Cast I	Spec	Spec	6-8	4, 3	°5.90	°3.23	°1.75	°1.00	°7.08	SeU	Ce	No	Yes	159		Oil	Detroit R
Detroit W	B, T	300	Clash	Ball	Roller	Ball	12.19	5.00	4	GeT	1	1 3/8	1 1/4	1 1/4	1/16	1 3/8	Cast I	Spec	Spec	5-7	4	6.05	3.47	1.81	1.00	7.00	SeU	Ce	No	Yes	198		Oil	Detroit W
Detroit KL,-A	Cars	170°	Clash	Ball	Roller	Roller	6.7	3.35	3	GeT	°23/32	°11/16	°7/8	1/16	None	3/4	Cast I	Spec	Spec	°7-9	3	3.11	1.69	1.00	None	3.76	Eng	Ce	No	Yes	69°		Oil	Detroit KL,-A
Dundore M35	Cars	Var	Clash	Ball	Plain	Ball	7.00	3.66	3	GeT	3/4	11/16	11/16	11/16	None	11/16	Cast I	2345	2320	6-8	3	3.07	1.76	1.00	None	4.01	Eng	Ce	No	Yes	120	85	Oil	Dundore M35
Dundore R	Cars	Car	Clash	Ball	Ball	Ball	10.00	4.50	4	GeT	3/4	11/16	11/16	3/4	3/4	11/16	Alum	2345	3250	6-8	3	2.69	1.56	1.00	.73	3.46	E-A	Ce	No	Yes		120	Oil	Dundore R
Dundore F50	Trucks	Var	Clash	Ball	Ball	Ball	8.62	4.25	3	GeT	7/8	1	1	Dir	None	1	Cast I	2345	2320	6-8	3	3.36	1.90	1.00	None		E-A	Ce	No	Yes	155		Oil	Dundore F50
Durston 04700	C, T	125	Clash	Roller	Roller	Plain	5.31	3.31	3	GeT	5/8	1	5/8	5/8	None		Cast I	3140	2320	6-8	3	3.09	1.85	1.00	None	3.87	Eng	Ce	No	Yes	75		Oil	Durston 04700
Fuller TDU	Taxi	Var	Clash	Ball	Roller	Roller	6.19	3.58	3	GeT	11/16	11/16	3/4	7/16	None	1/2°	Cast I	2320	2320	6-8°	3	3.17	1.60	1.00	None	2.7	Eng	Ce	Yes	Yes	119		Oil	Fuller TDU
Fuller DU	Trucks	Var	Clash	Ball	Roller	Roller	6.19	3.58	3	GeT	11/16	11/16	3/4	7/16	None	1/2°	Cast I	2320	2320	6-8°	3	4.29	2.07	1.00	None	3.65	Ehg	Ce	Yes	Yes	119		Oil	Fuller DU
Fuller TU, SU	Taxi, T	Var	Clash	Ball	Ball	Ball	7.00	3.84	3	GeT	3/4	7/8	7/8	1/2	None	7/8	Cast I	2320	2320	6-8	3	°2.90	°1.70	1.00	None	°3.50	Eng	Ce	Yes	Yes	163		Oil	Fuller TU, SU
Fuller G, GU	T & B	Var	Clash	Ball	Ball	Ball	8.34	4.50	4	GeT	1	1	7/8	7/8	1/2	1	Cast I	2320	2320	5-7	4	4.80	3.00	1.60	1.00	6.1	Eng	Ce	Yes	Yes	°214		Oil	Fuller G, GU
Fuller RU, R	T & B	Var	Clash	Ball	Ball	Ball	10.00	4.5	4	GeT	1	1 3/8	1 1/8	1 1/8	1/2	1 1/4	Cast I	2320	2320	5-7	4	4.8	3.00	1.6	1.0	6.1	Eng	Ce	Yes	Yes	°245		Oil	Fuller RU
Fuller H, HU	T & B	Var	Clash	Ball	Ball	Ball	12.25	5.25	4	GeT	1 1/4	1 1/2	1 1/4	1 1/4	5/8	1 1/2	Cast I	2320	2320	4 1/2-6	4	6.30	3.20	1.70	1.00	6.30	SeU	Ce	Yes	Yes	°215		Oil	Fuller H, HU
Fuller GOG&2SC-2.9	T & B	Var	Clash	Ball	Ball	Ball	8.37	4.50	4	GeT	1	1	7/8	1	11/16	1	Cast I	2320	2320	5-7	3	3.0	1.8	1.0	.69	4.1°	SeU	Ce	Yes	Yes	129		Oil	Fuller GOG&2SC-2.9
Fuller HOG&2-SC-16	T & B	Var	Clash	Ball	Ball	Ball	12.25	5.25	7	GeT	1 1/2	1 1/4°	1 3/8	1	1 7/8	1 1/16	Cast I	2320	2320	4 1/2-6	3	3.2	1.6	1.0	.75	3.2°	SeU	Ce	Yes	Yes	215		Oil	Fuller HOG&2-SC-16
Fuller 2-SC-2.9	T & B	Var	Clash	Ball	Ball	Ball	4.66	3.84	2	GeT	1 1/16	1	No	No	No	No	Cast I	2320	2320	5-7	2	2.9	1.0	None	None	None	Eng	Ce	Yes	Yes	135		Oil	Fuller 2-SC-2.9
Fuller 2-SC-1.7	T & B	Var	Clash	Ball	Ball	Ball	4.66	3.84	2	GeT	1 1/16	7/8	1/2	None	None	None	Cast I	2320	2320	5-7	2	1.70	1.00	None	None	None	Eng	Ce	Yes	Yes	135		Oil	Fuller 2-SC-1.7
Fuller 2-SC-.65	T & B	Var	Clash	Ball	Ball	Ball	4.72	3.80	2		1	7/8	No	No	No	No		2320	2320	5-7	2	.65	1.00	None	None	None	Eng	Ce	Yes	Yes	135		Oil	Fuller 2-SC-.65
Jones T4	Buses		Ind C	Ball	Ball	Ball	11.17	4.3	4	GeT	1 21/64	1 1/4	1 1/2	1.38	1 21/64	1	Cast I	2320	2320	5-7	4	4	2.58	1.55	1	5.32	Eng	Ce	Opt	No	256		Oil	Jones T4
Jones T6	Cars		Ind C	Ball	Ball	Ball	9.03	3.5	4	GeT	1.22	3/4	3/4	1.22	1.22	5/8	Cast I	2320	2320	7-9	3	2.83	1.56	1	.82	3.89	Eng	Ce	Opt	Yes	125		Oil	Jones T6
Jones T7, T7B	C & B		Ind C	Ball	Ball	Ball	°8.34	3.50	3	GeT	°1 5/16	°7/16	1 1/16	°1 5/16	None	°11/16	Cast I	2320	2320	7-9	3	2.93	1.56	1	None	3.97	Eng	Ce	Opt	Yes	°120		Oil	Jones T7, T7B
Jones T7S	Trucks		Ind C	Ball	Ball	Ball	7.87	3.5	3	GeT	15/16	7/8	1 1/16	11/16	None	11/16	Cast I	2320	2320	6-8	3	4	2.1	1	None	6.58	Eng	Ce	Opt	Yes	120		Oil	Jones T7S

Mechanics	J	C, T.	120	Clash.	Ball.	Plain.	Plain.	6.06	3.14	3	GeT.	9/16	5/8	11/16	1 1/32	None.	5/8	Cast I.	1045	5150	7-9	3	3.07	1.76	1.00	None.	4.02	Eng.	Ce.	No.	Yes	58	....	Oil.	**Mechanics**	J
Mechanics	LU	C, T.	160	Clash.	Ball.	R-P.	R-P.	6.65	3.50	3	GeT.	11/16	3/4	13/16	3/8	None.	3/4	Cast I.	5140	2345	7-9	3	3.24	1.8	1.00	None.	4.16	Eng.	Ce.	No.	Yes	75	No.	Oil.	**Mechanics**	LU
Muncie Gear	T5	C, T.	165	Clash.	Ball.	Plain.	Plain.	5.87	3.00	3	GeT.	9/16	5/8	11/16	Dir.	None.	5/8	Cast I.	3120	3120	6-8	3	2.80	1.75	1.00	None.	2.80	E-A.	Ce.	No.	Yes	85	60	Oil.	**Muncie Gear**	T5
Muncie Gear	T23 I	Trucks.	165	Clash.	Ball.	Roller.	Ball.	7	4	3	GeT.	3/4	11/16	13/16	Dir.	None.	11/16	Cast I.	3120	3120	6-8	3	4	2	1	None.	5.33	Eng.	Ce.	Opt.	Yes	117	....	Oil.	**Muncie Gear**	T23 I
Muncie Gear	T23N	C, T.	200	Clash.	Ball.	Roller.	Ball.	7.00	4.00	3	GeT.	3/4	11/16	13/16	Dir.	None.	11/16	Cast I.	3120	3120	6-8	3	3.00	1.82	1.00	None.	3.90	Eng.	Ce.	Opt.	Yes	117	....	Oil.	**Muncie Gear**	T23N
Muncie Prod.	551800	Cars.	115	Clash.	Ball.	Roller.	Plain.	6	2.81	3	GeT.	9/16	5/8	3/4	3/4	None.	5/8	S St.	2320	6150	7-9°	3	3.08	1.70	1	None.	3.97	Eng.	Ce.	No.	Yes.	52.7	....	Oil.	**Muncie Prod.**	551800
Muncie Prod.	488508	Cars.	125	Clash.	Ball.	Plain.	Plain.	6.19	3.21	3	GeT.	11/16	11/16	3/4	3/4	None.	11/16	Cast I.	2320	5150	7-9°	3	3	1.75	1	None.	3.86	Eng.	Ce.	No.	Yes.	63.5	....	Oil.	**Muncie Prod.**	488508
Muncie Prod.	551685	Trucks.	185	Clash.	Ball.	Roller.	Roller.	8.44	4.08	3	GeT.	3/4	13/16	7/8	7/8	None.	13/16	Cast I.	2320	6150	6-8°	3	3.88	1.82	1	None.	4.71	Eng.	Ce.	No.	Yes.	138	....	Oil.	**Muncie Prod.**	551685
Warner Corp.	W-17460	Cars.	150	Clash.	Ball.	Plain.	Plain.	7.00	3.83	3	GeT.	11/16	3/4	3/4	.....	None.	3/4	Cast I.	°5140	5150	6-8	3	3.53	1.74	1	None.	3.97	SeU.	Ce.	No.	Yes.	94.2	....	Oil.	**Warner Corp.**	W-17460
Warner Corp.	17580	Cars.	100	Clash.	Ball.	Plain.	Plain.	6.38	3.21	3	GeT.	9/16	5/8	3/4	.....	None.	5/8	Cast I.	°5140	5150	7-9	3	3.32	1.77	1	None.	4.20	SeU.	Ce.	No.	Yes.	51	....	Oil.	**Warner Corp.**	17580
Warner Gear	T64J	Cars.	150	Clash.	Ball.	Roller.	Plain.	6.09	3.35	3	GeT.	9/16	11/16	3/4	3/32	None.	11/16	Cast I.	1045	5150	7-9	3	3.11	1.69	1.00	None.	3.78	Eng.	Ce.	No.	Yes	100	....	Oil.	**Warner Gear**	T64J
Warner Gear.	T-68A	C, T.	125	Clash.	Ball.	Plain.	Plain.	5.72	2.75	3	GeT.	43/64	11/16	3/4	0/16	None.	11/16	Cast I.	1045	5150	8-10	3	3.07	1.77	1.00	None.	4.00	Eng.	Ce.	No.	Yes	85	....	Oil.	**Warner Gear.**	T-68

ABBREVIATIONS:
******—Auxiliary Transmission.
‡—Special Design.
†—Semi Steel.
*****—Optional.
°—Others also.

§—1926 Specifications.
Alum—Aluminum.
B—Buses.
B & R—Ball & Roller.
C—Cars.

Cast I—Cast Iron.
Ce—Center.
ChS—Chrome Steel.
CI & AI—Cast Iron and Aluminum.
C-S—Center or Side.

Dir—Direct.
E-A—Engine or Amidships.
Eng—Unit with Engine.
GeT—Gear Teeth.
IndC—Individual Clutch.

NoF—Non Fluid Oil.
Opt—Optional.
P—Pitch
RC—Rail Cars.
R-P—Roller or Plain.
SeU—Separate Unit.

Spec—Special.
S St—Semi Steel.
T—Trucks.
Tr—Tractors.
Var—Variable.

American Stock Front Axles

MAKE AND MODEL	Designed for	Maximum Load on Spring Pads (Lbs.)	AXLE CENTER				Type of Steering Head	BEARINGS TYPE			MATERIAL		Transverse Inclination of King Pin (Deg.)	Inclination of Wheel Spindles (Deg.)	Recommended Fore & Aft Inclination (Deg.)	Do Wheels Trail?	TIE ROD		Effective Length of Drag Link Arm (Ins.)	Spring Pad Location	ROAD CLEARANCE		FRONT WHEEL BRAKES			Wheel Tread (Ins.)	Weight (Complete Without Wheels, Lbs.)	MAKE AND MODEL
			Material (S.A.E. No.)	Type	Depth of Section (Ins.)	Width of Flange (Ins.)		In Hubs	Spindle Thrust	Pivots	Steering Knuckle (S.A.E. No.)	Knuckle Arm (S.A.E. No.)					Location	End Type			Absolute Minimum (Ins.)	Tire Size (Ins.)	Equipped?	Type	Diameter of Drum (Ins.)			
Adams	75300	Cars.		1035	I-S.	2 5/8	1 5/8	Rev. Ell.	Ball.	Plain.	Plain.	3130	3130	7	2	0	No.	R A.	Ball.	6	A A.								**Adams**	75300
Adams	75702	Cars.		1035	I-S.	2 1/16	1 1/16	Rev. Ell.	Ball.	Plain.	Plain.	3130	3130	0	2	0	No.	R A.	Y & P		A A.								**Adams**	75702
Columbia	5300	Trucks.	2000	1035	I-S.	2 5/8	1 3/4	Elliott	Roller.	Ball.	Plain.	Spec.	1035	0	2	2	0	R A.	Ball.	9	A A.	10	34	N P.	None	None.	58	105	**Columbia**	5300
Columbia	1200	Cars.	1200	1035	I-S.	2 1/16	1 5/8	Rev. Ell.	Roller.	Ball.	Plain.	1035	1035	7	2	2	0	R A.	Ball.	8	A A.	10	.....	Stk.	Ext.	14	56	100	**Columbia**	1200
Columbia	1300	Cars.	1200	1035	I-S.	2	1 1/2	Rev. Ell.	Roller.	Ball.	Plain.	ASt.	ASt.	7	2	2	.....	R A.	Ball.	7 3/4	A A.	.....	.....	Stk.	Ext°	12°	56	88	**Columbia**	1300
Columbia	1400	Cars.	1400	1035	I-S.	2 1/16	1 5/8	Rev. Ell.	Roller.	Ball.	Plain.	1035	1035	7	2	2	0	R A.	Ball.	8	A A.	10	.....	Stk.	Ext.	12	56	100	**Columbia**	1400
Columbia	1600	Cars.	1600	1035	I-S.	2 5/16	1 5/8	Rev. Ell.	Roller.	Ball.	Plain.	1035	1035	7	2	2	0	R A.	Ball.	9	A A.	10	32	N P.	Int.	12-14	56	115	**Columbia**	1600
Columbia	5200	Trucks.	2600	Spec.	I-S.	2 5/8	1 3/4	Rev. Ell.	Roller.	Ball.	Plain.	1035	1035	7	2	2	0	R A.	Ball.	9	A A.	10	34	Stk.	Int.	15	56	130	**Columbia**	5200
Continental	2301	Trucks.	Var.	1035	I-S.	2 1/2	1 3/4	Elliott	Roller.	Roller.	Plain.	3135	3135	0	1 1/2	0	No.	R A.	Ball*	6 1/8	A A.	12	34	N P.	None.	None.	56	Var.	**Continental**	2301
Continental	2302	Trucks	Var.	1035	I-S.	2 3/4	2	Elliott	Roller.	Roller.	Roller.	3135	3135	0	1 1/2	0	No.	R A.	Ball*	6 5/8	A A.	15	36	Opt.	Int.	17	56*	Var.	**Continental**	2302
Continental	1803	Trucks.	Var.	1035	I-S.	3 5/8	2 1/4	Elliott	Roller.	Roller.	Roller.	3135	3135	0	1 1/2	0	No.	R A.	Ball*	7 1/4	A A.	14 1/2	36	Opt.	Int.	17	60*	Var.	**Continental**	1803
Continental	1901	Trucks.	Var.	1035	I-S.	2 3/4	2	Elliott	Roller.	Roller.	Ball.	3135	3135	0	1 1/2	0	No.	R A.	Ball*	6 3/8	A A.	15	36	Opt.	Int.	17	56*	Var.	**Continental**	1901
Continental	2001	Trucks.	Var.	1035	I-S.	2 1/2	1 3/4	Elliott	Roller.	Roller.	Plain.	3135	3135	0	1 1/2	0	No.	R A.	Ball*	6 1/8	A A.	12	34	Opt.	Int.	20	56	Var.	**Continental**	2001
Continental	2005	Trucks.	Var.	1035	I-S.	4	2 1/2	Elliott	Roller.	Roller.	Roller.	3135	3135	0	1 1/2	0	No.	R A.	Y & P.	6 1/8	A A.	14	36	Opt.	Int.	20	61 1/2*	Var.	**Continental**	2005
Eaton	14HB	Cars.	Var.	1035	I-S.	2 5/8	1 3/4	Rev. Ell.	Roller.	Plain.	Plain.	3135	3135	7 1/2	2	0	Yes.	R A.	Ball.	8	A A.	9 1/2	32	Stk.	Ext.	14 3/8	56 1/2	150	**Eaton**	14HB
Eaton	382-F	Cars.	Var.	3135	I-S.	2 5/8	1 5/8	Rev. Ell.	Roller.	Ball.	Plain.	3135	3135	0	3	0	Yes.	R A.	Ball.	8	A A.	9 1/2	32	Stk.	Int.	14	56	160	**Eaton**	382-F
Eaton	421-F	Cars.	Var.	3135	I-S.	2 5/8	1 3/4	Rev. Ell.	Roller.	Ball.	Plain.	3135	3135	7	2	0	Yes.	R A.	Ball.	7 1/8	A A.	8 5/8	33	Stk.	Servo.	15 5/8	58 1/4	154	**Eaton**	421-F
Eaton	501-F	Trucks.	1300	1040	I-S.	2 1/8	1 1/2	Elliott	Roller.	Plain.	Plain.	3135	3135	0	2	0	Yes.	R A.	Ball.	7 3/4	AA.	10 5/8	31	N P.	None.	None.	56	60	**Eaton**	501-F

ABBREVIATIONS:

*****—Dimensions Optional.
°—Also others.
‡—1926 Specification

AA—Above Axle
B—Buses
ASt—Alloy Steel
B-P—Ball or Plain
C—Cars

E-H—External Hydraulic
Ext—External
IA—Internal Air Operated.
Int—Internal

I-S—"I" Section
Mol—Molybdenum
N-P—No Provision
Opt—Optional

RA—Rear of Axle
Rev. Ell.—Reverse Elliott
Spec—Special
Stk—Standard Equipment

T—Trucks
Tub—Tubular
Var—Variable
Y&P—Yoke and Pin

American Stock Front Axles—Continued

MAKE AND MODEL	Designed for	Maximum Load on Spring Pads (Lbs.)	AXLE CENTER				Type of Steering Head	BEARINGS TYPE			MATERIAL		Transverse Inclination of King Pin (Deg.)	Inclination of Wheel Spindles (Deg.)	Recommended Fore & Aft Inclination (Deg.)	Do Wheels Trail?	TIE ROD		Effective Length of Drag Link Arm (Ins.)	Spring Pad Location	ROAD CLEARANCE		FRONT WHEEL BRAKES			Wheel Tread (Ins.)	Weight (Complete Without Wheels, Lbs.)	MAKE AND MODEL
			Material (S.A.E. No.)	Type	Depth of Section (Ins.)	With of Flange (Ins.)		In Hubs	Spindle Thrust	Pivots	Steering Knuckle (S.A.E. No.)	Knuckle Arm (S.A.E. No.)					Location	End Type			Absolute Minimum (Ins.)	Tire Size (Ins.)	Equipped?	Type	Diameter of Drum (Ins.)			
Eaton (Torb)	750F	Trucks	1800	1040	I-S	2⅜	1¾	Elliott	Roller	Plain	Plain	Spec.	3135	0	2	0	Yes	R A	Y & P.	8	A A	9⅞	32	N P	None	None	56	100	Eaton (Torb) 750F
Eaton (Torb)	AA 3B	Trucks	2400	1040	I-S	2½	2	Elliott	Roller	Plain	Plain	2330	2330	0	2	0	Yes	R A	Y & P.	8⅛	A A	11	34	N P	None	None	56	120	Eaton (Torb) AA 3B
Eaton	AA 4B	Trucks	2400	1040	I-S	2⅝	2	Elliott	Roller	Plain	Plain	2330	2335	0	2	0	Yes	R A	Y & P.	10	A A	6⅞	34	N P	None	None	60	125	Eaton AA 4B
Eaton (Torb)	CC 3B	Trucks	3000	1040	I-S	2¾	2¼	Elliott	Roller	Plain	Plain	2330	2330	0	2	0	Yes	R A	Y & P.	7⅛	A A	13⅛	36	N P	None	None	56	180	Eaton (Torb) CC 3B
Eaton	6000F	Trucks	7000	1035	I-S	4¼	2¾	Elliott	Roller	Ball	Plain	Mol.	3135	0'	2½	0	Yes	R A	Y & P.	10⅛	A A	5½	34	Stk	Shoe	16⅞	66⅛	578	Eaton 6000F
Salisbury	H	Cars	1500	1040	I-S	2⅛	1⅝	Rev. Ell.	Roller	Ball	Plain	5130	5130	6	2½	1	Yes	R A	Ball	8⅜	A A	10⅛	32	Stk	Ext	12	56	88	Salisbury H
Salisbury	D	Trucks	2000	1040	I-S	2½	1⅝	Elliott	Roller	Plain	Plain	3140	3140	0	2½	1	Yes	R A	Y & P.	8	A A	12	34	N P	None	None	56	106	Salisbury D
Salisbury	F	Cars	1700	1040	I-S	2¼	1⅝	Rev. Ell.	Roller	Ball	Plain	5130	5130	7	1½	1	Yes	R A	Ball	7⅛	A A	10	32	Stk	Ext	14	56	96	Salisbury F
Salisbury	J	Cars	1350	1040	I-S	2	1⅜	Rev. Ell.	Roller	Ball	Plain	5130	1040	7	1½	1	Yes	R A	Ball	8⅜	A A	9⅛	30	Stk	Ext	12	56	80	Salisbury J
Salisbury	K	Cars	1500	1040	I-S	2⅛	1⅝	Rev. Ell.	Roller	Ball	Plain	5130	5130	6	2½	1	Yes	R A	Ball	7¾	A A	10⅛	32	Stk	Ext	12	56	88	Salisbury K
Salisbury	L	Cars	1500	Spec		2⅛		Rev. Ell.	Roller	Plain	Plain	4140	4140	7	2	1	Yes	R A	Ball	6⅞	A A	8¼	29	Stk	Int	12	54	97	Salisbury L
Salisbury	I	C & T	2200	1040	I-S	2⅝	2⅛	Rev. Ell.	Roller	Ball	Plain	4140	5130	6	2½	1	Yes	R A	Ball	8¼	A A	9¾	34	Opt	Ext	15½	56	100	Salisbury I
Shuler	350	Trucks	3000	1035	I-S	2½	1¾	Elliott	Roller	Plain	Plain	3135	3135	0	2	0	No	R A	Y & P.	6½	A A	12	32	Opt	Int	15⅝	56*	130	Shuler 350
Shuler	5410	T & B	3000	1035	I-S	2¾	2	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P.	6½	A A	11¼	34	Opt	Int	15⅝	56*	130	Shuler 5410
Shuler	510	Trucks	3400	1035	I-S	2¾	2	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	6½	A A	13	34	Opt	Int	15⅝	56*	170	Shuler 510
Shuler	610	Trucks	5400	1035	I-S	3½	2½	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	6¾	A A	13½	34	Opt	Int	17½	64½*	235	Shuler 610
Shuler	715	Trucks	9500	1035	I-S	3⅝	2⅛	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P	Opt	A A	11½	34	N P	N P	None	64¾	315	Shuler 715
Shuler	710-B	Buses	9500	1035	I-S	3½	2⅛	Elliott	Ball	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	Opt	A A	6½	34	N P	N P	None	70	320	Shuler 710-B
Shuler	550	Trucks	4000	1035	I-S	2¾	2	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	6½	A A	13	34	Opt	Int	15⅜	58*	185	Shuler 550
Shuler	5550	Trucks	4000	1035	I-S	3	2¼	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P.	7⅛	A A	12⅝	34	Opt	Int	17½	58*	205	Shuler 5550
Shuler	5550-B	Buses	4000	1035	I-S	3¼	2¼	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P.	8⅝	A A	9	34	Opt	Int	17½	64½*	225	Shuler 5550-B
Shuler	5510	Trucks	3600	1035	I-S	3⅛	2⅛	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P	Opt	A A	12⅝	34	Opt	Int	17½	58	190	Shuler 5510
Shuler	5510-B	Buses	3600	1035	I-S	3⅛	2¼	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P.	Opt	A A	9	34	Opt	Int	17½	60	210	Shuler 5510-B
Shuler	610-B	Buses	5400	1035	I-S	3½	2½	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	8¾	A A	6½	34	Opt	Int	17½	64½*	255	Shuler 610-B
Shuler	650	Trucks	7500	1035	I-S	2½	2¼	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	7	A A	13½	34	Opt	Int	17½	64½*	290	Shuler 650
Shuler	310	Trucks	2400	1035	I-S	2½	1¾	Elliott	Roller	Plain	Plain	3135	3135	0	2	0	No	R A	Y & P.	6½	A A	12	32	Opt	Int	15⅝	56*	120	Shuler 310
Shuler	5400	Trucks	2400	1035	I-S	2¾	2	Elliott	Roller	Plain	Plain	3135	3135	0	2	0	No	R A	Y & P.	7⅛	A A	11¼	34	Opt	Int	15⅝	56	120	Shuler 5400
Shuler	5405	Trucks	2400	1035	I-S	2¾	2	Elliott	Roller	Ball	Plain	3135	3135	0	2	0	No	R A	Y & P.	7⅛	A A	11¼	34	Opt	Int	15⅝	56	120	Shuler 5405
Shuler	650-B	Buses	7500	1035	I-S	3½	2½	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	8¾	A A	6½	34	Opt	Int	17½	64½*	300	Shuler 650-B
Shuler	655	Trucks	7800	1035	I-S	3⅝	2⅛	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	Opt	A A	11½	34	N P	N P	None	66½	310	Shuler 655
Shuler	615	Trucks	5400	1035	I-S	3⅝	2⅛	Elliott	Roller	B-P	Plain	3135	3135	0	2	0	No	R A	Y & P.	Opt	A A	11½	34	N P	N P	None	66½	255	Shuler 615
Timken	1560	Buses	5000	1035	I-S	3	2⅝	Rev. Ell.	Roller	Roller	Plain	5130	5130	6	3	½	Yes	R A	Ball	9¼	A A	6	34	Opt	I-A	17¼	72	200	Timken 1560
Timken	12300	Trucks	2000	1035	I-S	2½	1⅞	Elliott	Roller	Roller	Plain	5130	5130	0	2	.....	Yes	R A	Ball	.....	A A	.....	.....	N P	N P	None	56	114	Timken 12300
Timken	14700	.....	2600	1035	I-S	2⅞	2¼	Rev. Ell.	Roller	Plain	Plain	5130	5130	7½	1½	.....	Yes	R A	Ball	.....	A A	.....	.....	Opt	Int	16	60	.....	Timken 14700
Timken	15300	Trucks	3500	1035	I-S	2⅞	2¼	Elliott	Roller	Roller	Plain	5130	5130	0	1½	.....	Yes	R A	Ball	.....	A A	.....	.....	N P	N P	None	63	.....	Timken 15300
Timken	16300	Trucks	5400	1035	I-S	3⅝	2¼	Elliott	Roller	Roller	Plain	5130	5130	0	1½	.....	Yes	R A	Ball	.....	A A	.....	.....	N P	N P	None	69½	.....	Timken 16300
Timken	17300	Trucks	7500	1035	I-S	4⅛	2½		Ball	Roller	Plain	5130	5130	0	1½	.....	Yes	R A	Ball	.....	A A	.....	.....	N P	N P	None	71⅜	.....	Timken 17300
Timken	1660	Buses	7000	1035	I-S	3¼	2⅜	Rev. Ell.	Roller	Roller	Plain	5130	5130	6	3	½	Yes	R A	Ball	9	A A	6¾	36	Opt	I-A	17¼	72	260	Timken 1660
Timken	2160	Cars	1750	1035	I-S	2⅛	1⅝	Rev. Ell.	Roller	Ball	Plain	5130	5130	6	2½	½	Yes	R A	Ball	8¼	A A	10½	32	Opt	E-H	14⅜	56	74	Timken 2160
Timken	2335	Cars	2250	1035	I-S	2⅛	2⅛	Rev. Ell	Roller	Ball	Plain	5130	5130	6	2½	½	Yes	R A	Ball	7⅜	A A	10½	33	Opt	E-H	15½	56	120	Timken 2335
U. S.	A	Cars	1650	1035	I-S	1¾	1⅝	Lemoine	Roller	Roller	Roller	2335	3135	0	1½	2	No	R A	Ball	8	A A	10¼	32	Stk	Int	14	56	135	U. S. A
U. S.	B	Cars	2200	2330	I-S	2½	2	Rev. Ell.	Roller	Roller	Ball	3135	3135	9	1½	2	No	Opt	Ball	8	A A	10	16	Stk	Int	14	56	165	U. S. B
‡Vig-Tor	105	C & T	1300	1035	I-S	2¼	1⅝	Rev. Ell.	Roller	Roller	Roller	2335	2335	0	2	2	Yes*	R A	Ball	8½	A A	12¾	32	N P	None	None	56	75	Vig-Tor 105‡
‡Vig-Tor	107	C & T	1700	1035	I-S	2⅜	1⅝	Rev. Ell.	Roller	Roller	Roller	2335	2335	0	2	2	Yes*	R A	Ball	8½	A A	10⅞	34	N P	None	None	56	90	Vig-Tor 107‡
‡Vig-Tor	125	T & B	3300	1035	I-S	3	2	Rev. Ell.	Roller	Roller	Roller	2335	2335	0	2	2	Yes*	R A	Y & P.	8	A A	13	36	N P	None	None	58	225	Vig-Tor 125‡
Vulcan	3F	Trucks	2800	1040	I-S	3	1¾	Elliott	Roller	Plain	Plain	3140	3140	.....	2	1	Yes	R A	Y & P.	7	A A	12	34	N P	None	None	.....	150	Vulcan 3F
Vulcan	4F	Trucks	3500	1040	I-S	3¼	2⅛	Elliott	Roller	Plain	Plain	3140	3140	.....	2	1	Yes	R A	Y & P.	7	A A	13	36	N P	None	None	.....	200	Vulcan 4F
Wisconsin	11	Trucks	2750	1035	I-S	2¾	1¾	Elliott	Roller	B-P	Plain	3135	1025	0	2	2	No	R A	Y & P.	8	A A	11	34	N P	None	None	56	130	Wisconsin 11
Wisconsin	21	Trucks	3400	1035	I-S	3⅛	2	Elliott	Roller	Plain	Plain	3135	1025	0	2	2	No	R A	Y & P.	9	A A	11	34	N P	None	None	58	175	Wisconsin 21
Wisconsin	30	Trucks	5000	1035	I-S	3⅝	2¼	Elliott	Roller	Ball	Plain	3135	1025	0	2	2	No	R A	Y & P.	9	A A	12	36	N P	None	None	65	275	Wisconsin 30
Wisconsin	50	Trucks	6600	1035	I-S	4	2½	Elliott	Roller	Ball	Plain	3135	1025	0	2	2	No	R A	Y & P.	10	A A	11	36	N P	None	None	65	380	Wisconsin 50
Wisconsin	5200	T & B	5200	2330	Tub	2⅞	.....	Lemoine	Roller	Roller	Roller	2335	2335	0	0	2	Yes	R A	Y & P.	10	A A	8	34	Stk	Int	17	73	420	Wisconsin 5200
Wisconsin-Columbia	7000	T & B	3000	1035	I-S	2¾	2	Elliott	Roller	Plain	Plain	2335	2335	0	2	2	No	R A	Y & P.	8	A A	10	34	N P	None	None	56	135	Wisconsin-Columbia 7000
Wisconsin-Columbia	8500	T & B	4000	1035	I-S	3	2	Elliott	Roller	Plain	Plain	2335	2335	0	2	2	No	R A	Y & P.	9	A A	10	34	N P	None	None	58	175	Wisconsin-Columbia 8500

ABBREVIATIONS: *—Dimensions Optional; °—Also others; ‡—1926 Specification; AA—Above Axle; B—Buses; ASt—Alloy Steel; B-P—Ball or Plain; C—Cars; E-H—External Hydraulic; Ext—External; IA—Internal Air Operated; Int—Internal; I-S—"I" Section; Mol—Molybdenum; N-P—No Provision; Opt—Optional; RA—Rear of Axle; Rev. Ell.—Reverse Elliott; Spec—Special; Stk—Standard Equipment; T—Trucks; Tub—Tubular; Var—Variable; Y&P—Yoke and Pin

Airplane Engines

ENGINE MAKE AND MODEL	Type	Cooled by	No. of Cyls. Bore and Stroke (Ins.)	Piston Displacement	Compression Ratio	B. M. E. P.	Rated B.H.P. and R.P.M.	Maximum B.H.P. at R.P.M.	Crankshaft Normal R.P.M.	Propeller Normal R.P.M.	Fuel Consumption Lbs. B.H.P. Hr.	Oil Consumption Lbs. B.H.P. Hr.	Fuel Consumption Gals. Hr. (Approx.)	Weight, Dry (Lbs.)	Weight H.P. (Lbs.)	Carburetors Number and Make	IGNITION Make	IGNITION Type	IGNITION Number	STARTER Make	STARTER Type	INSTALLATION DIMENSIONS (Ins.) Length	Height †	Width †	Height Above Engine Bearers Above Engine Bed	Center to Center of Engine Bearers
AMERICAN																										
Bailey Bullseye	Radial	Air	7-4⅜x5½	578			140-1850		180	1850				325	2.30	1	Bos	M	2	None	PS				Radial	Radial
Curtis D-12	Vee 60	Wat	12-4½x6	1145	5.3	135	435-2300		2300	2300	.50	.02	37.5	680	1.51	2-Strom	Scin	M	2		Opt	56¾	34¾	28¼	21½	15¾
Curtis D-12	Vee 60	Wat	12-4½x6	1145	6.0	144	430-2100	475-2300	2300	2300	.50	.02	39.5	680	1.43	2-Strom	Scin	M	2		Opt	56¾	34¾	28¼	21½	15¾
Curtis C-6-A	Vert	Wat	6-4½x6	573	5.2	133	160-1750	175-1900	1750	1750	.50	.02	13.7	420	2.55	1-Zenith	Spli	M	2		Opt	57½	40¾	23½	24½	15¾
Curtis OX-5	Vee 90	Wat	8-4x5	503	4.9	112	90-1400	115-1700	1400	1400	.50	.02	8.3	390	3.90	1-Zenith	Berl	M	1	None	PS	55⅜	35⅛	30	17¾	12⅞
Curtis V-1400	Vee 60	Wat	12-4⅞x6¼	1400	5.5	137	500-2100	550-2500	2100	2100	.50	.02	42.5	660	1.29	2-Strom	Spli	M	2		Opt	51⅛	35½	26	21½	15¾
Curtis V-1550	Vee 60	Wat	12-5¼x6¼	1569	5.7	130	600-2500	635-2500	2500	2500°	.50	.02	53.0	720	1.13	2-Strom	Spli	M	2		Opt	64½	35¾	26	22½	15¾
Curtis R-1454	Radial	Air	9-5⅝x6½	1454	5.4	136	450-1800	450-1800	1800	1800	.53	.03				1-Strom		B	2		HC	27⅛	52¾	52¾	Radial	Radial
Detroit Air Beaver	Radial	Air	5-4½x3½	234	5.0	112	60-1800	75-2400	1800	1800	.52	.03	5.0	200	3.33	1-Strom	Scin	M	2	Eel	EM	14½	32	32	Radial	Radial
Fairch. Camin 447B	Radial	Air	4-5⅝x4½	447	5.2	110	150-1200		1200	1200	.54	.03	13.0	360	2.44	1-Strom	Scin	M	2	Eel	Opt	18	37½	37½	Radial	Radial
Irwin Meteormotor	Radial	Air	4-2⅞x2⅞	72	5.0		20-1730	27-2500	1730	1730	.5	.03	1.5	56	2.8	1-Winfd	Bos	M	1	None	PS		23	23	Radial	Radial
Packard 2A-1500	Vee 60	Wat	12-5⅜x5½	1530	6.1°	140	600-2500	650-2700	2500	1250°	.53	.02	53.	880°	1.46	2-Strom	Delco°	B°	2		HC	69⅛	37¾	26⅞	22⅜	15¾
Packard‡ 2A-1500	Vee 60	Wat	12-5⅜x5½	1530	5.5°	138	500-2000	650-2700	2000	2000	.53	.02	44	780	1.56	2-Strom	Scin	M	2		HC	63⅛	34⅛	26⅞	6⅛	15¾
Packard 2A-2500	Vee 60	Wat	12-6⅜x6½	2540	5.7°	135	800-2000	835-2100	2000	2000°	.53	.02	70	1150	1.44	2-Strom	Scin°	M°	2		HC	69¾	42½	30½	27⅛°	18¼
Pratt & Whit Wasp	Radial	Air	9-5¾x5¾	1344		132	425-1900		1900	1900	.55	.03		640	1.50	1-Strom	Scin	M	2	Ecl	In				Radial	Radial
§Tips & Smith S-R	Radial	Air	9-4.13x5.51	667	5.2		120-1400		1400	1400			6½	336	2.8	1-Spec	Own	M	1	None	PS		36	36	18	13⅞
Wright J-4B	Radial	Air	9-4½x5½	788	5.3	123	200-1800	220-1800	1800	1800	.55	.02	17	482	2.2	1-Strom	Scin	M	2	Ecl	HC	43¾	18⅞	18½	Radial	Radial
Wright J-5	Radial	Air	9-4½x5½	788	5.4	123	200-1800	220-1800	1800	1800	.50	.03	17	510	2.3	1-Strom	Scin	M	2	Ecl	HC	45	18½	18½	Radial	Radial
Wright-Morehouse	Horiz	Air	2-3⅜x3⅝	80	5.0	107	25-2600	28-2600	2600	2600	.55		3	85	3.0	1-Strom	Scin	M	1	None	PS	22	17⅜	30⅛	10⅞	10⅝
Wright R-1750	Radial	Air	9-6x6⅞	1753	5.3	125	500-1800		1800	1800	.55	.04	42	750	1.5	1-Strom	Scin	M	2	Ecl	HC	54⅛	21⅞	21⅞	Radial	Radial
Wright P-2	Radial	Air	9-6x6½	1653	5.4	126	435-1800	500-1900	1800	1800	.56	.04		851	2.1	1-Strom	Scin	M	2	Ecl	In	47⅛	54½	54½	Radial	11⅛*
Wright T-3B	Vee 60	Wat	12-5¾x6¼	1947	5.3	128	600-2000	630-2000	2000	2000	.52	.02	50	1160	1.8	2-Strom	Scin	M	2	Ecl	HC	59⅛	42⅛	30⅞	26⅞	17⅛
BRITISH																										
A.B.C. Scorpion II	Horiz	Air	2-4.01x3.6	91	5.5	136	34-2300	40-2700	2300	2300	.50	.04	2	106	2.7	1-Zenith	B.T.H.	M	1		Imp	19½	26	32	Horiz	Horiz
A.D.C. Airdisco	Vee 90	Air	8-4.13x5.12	550	4.6	109	120-1800	140-2000	1800	900	.61	.05	9.6	445	3.7	2-Zenith	B.T.H.	M	2	None	PS	46	31.1	31¼	18.1	17¾
A.D.C. Cirrus I	Vert	Air	4-4.13x5.12	275	4.6	103	60-1800	65-2000	1800	1800	.57	.02	4.6	285	4.4	1-Zenith	B.T.H.	M	2		HC°	46	36½	21¼	22¾	21¼
A.D.C. Cirrus II	Vert	Air	4-4.33x5.12	302	4.9	112	75-1800	84-2000	1800	1800	.56	.02	5.6	275	3.7	d-Zenith	B.T.H.	M	2		Imp	46	35½	19¾	21½	21¼
A.D.C. Nimbus	Vert	Wat	6-5.98x7.48	1262	5.5	132	300-1450	335-1600	1450	1450	.48	.02	19	675	2.25	2-Zenith	Siem	M	2		HM	69½	43¾	20½	30	Var
Armstrong S. Jaguar 4	Radial	Air	14-5x5½	1512	5.0	119	385-1700	430-1870	1700	1700	.46	.02	28	778	2.0	1-Own	B.T.H.	M	2	Own	Var	25½	45½	45½	Radial	Radial
Armstrong S. Lynx 4	Radial	Air	7-5x5½	756	5.0	117	180-1620	205-1780	1620	1620	.46	.02	13	495	2.7	1-Zenith	B.T.H.	M	2	Own	Var	20½	45½	45½	Radial	Radial
Armst'g. S. Mongoose 2	Radial	Air	5-5x5½	540	5.0	111	125-1650	150-1815	1650	1650	.46	.02	9	375	3.0	1-Zenith	Watf	M	2	Own	HM	18	45½	45½	Radial	Radial
Armstrong S. Genet 2	Radial	Air	5-4x4	251	5.0	111	65-1850	80-2035	1850	1850	.46	.02	4.7	190	2.9	1-Own	Watf	M	2	Own	HM	16	32½	32½	Radial	Radial
Beardmore Cyclone	Vert	Wat	6-8⅝x12	4315	5.2	130	950-1350	980-1500	1350	1350	.48	.01		2150	2.3	d-Zenith	Watf	M	2			80.3		35		
Bristol Jupiter VI	Radial	Air	9-5¾x7½	1753	5.3	125	460-1700	495-1870	1700	1700	.53	.03	32	710	1.5	1-Own	B.T.H.	M	2	Own	CA	20	53	53	Radial	21*
Bristol Lucifer IV	Radial	Air	3-5¾x6¼	487	5.3	125	130-1700	140-1870	1700	1700	.53	.03	9	320	2.5	1-Clau	Lucas	M	2	Own	HC	19	48	48	Radial	17½*
Bristol Cherub III	Horiz	Air	2-3½x3.8	75	5.5	125	32-2900	35-3200	2900	2900	.55	.04	2¼	100	3.1	1-Zenith	Watf	M	1	None	PS	9	20	25.5	Horiz	7.4
Napier Lion 5	W	Wat	12-5½x5½	1461	5.1°	115	425-2000	460-2200	2000	1318	.56	.02	25	950	2.2°	2-Clau	B.T.H.	M	2	Own	HM	57	36	42	26¼	17⅞
Napier Lion Direct	W	Wat	12-5½x5⅝	1461	5.8	122	450-2000	502-2200	2000	2000	.53	.02	25	915	1.8	2-Clau	B.T.H.	M	2	Own	HM	57	36	42	26¼	17⅞
Rolls Royce Condor	Vee 60	Wat	12-5½x7½	2138	5.3	126	650-1900		1900	1900°	.50	.03	44	1213	1.9	d-Clau	B.T.H.	M	2	Own	HC°	69⅛	43½	30½	25¼	21°
Rolls Royce Eagle IX	Vee 60	Wat	12-4½x6½	1240	5.2	127	360-1800		1800	1080	.51	.03	25	948	2.6	2-Clau	Watf	M	2	Own	HC	73	46	32		24
CONTINENTAL																										
Farman 12WE	W 60	Wat	12-5.12x6.30	2548	5.5	138	500-2130	550-2200	2050	1025	.51	.18		1173	2.1	3-Zenith	Ducel	M	2	Own	EM	47.5	45.9	49.6	26.8	21.26
Farman 18WD	W 40	Wat	18-5.12x7.09	2622	5.5	128	700-1850	830-1920	1800	900	.52	.26		1895	2.3	6-Zenith	Ducel	BM	4	Own	EM	71.7	47.3	41.0	28.3	22.85
Hispano S. 12-G	W 60	Wat	12-5.52x5.91	1690	6.0°	117	500-2000	582-2000	2000	2000	.49	.01		863	1.7	3		M	2		CA					
Hispano S. 12-H	Vee	Wat	12-5.52x5.91	1690	5.3°	117	450-1800	517-1800	1800	1800	.55	.02		900	2.0	2		M	2		CA					
Lorraine 12Eb	W 60	Wat	12-4.74x7.10	1489	5.5	132	450-1850	475-1850	1850	1850	.51	.03		833	1.8	2-Zenith		M	2	Own	HM	54.2	54.2	47.7	37.6	16.22
Lorraine 12Db	Vee 60	Wat	12-4.74x6.71	1407	5.5	132	400-1700	403-1700	1700	1700°	.51	.03		904	2.3	2-Zenith	SEV°	M°	2	Own	HM	63.2	41.0	31.3		15.68
Lorraine 14b, 41	W 60	Wat	12-4.74x7.10	1489	6.0°	124	450-1900	480-1900	1900	1230°	.47	.02		915°	2.0	2		M	2	Viet	HM	62.2°	54.2	47.7	37.6	16.22
Lorraine 42	Radial	Air	14-5.33x5.92	1832		108	450-1800		1800	1800				882	1.8	1		M	2	Viet	HM	47.5	48.9	48.9	Radial	30.7*
Lorraine 47	Radial	Air	7-5.33x5.92	916		105	200-1650	220-1800	1650	1650				573	2.9	1		M	2	Viet	HM	41.9	48.9	48.9	Radial	30.7*
Lorraine 28 III	W 40	Wat	18-4.74x7.10	2233	6.0	124	650-1850	710-1895	1850	1850	.52	.01		1235	1.9	6-Zenith		M	2	Viet	HM	76.2	42.8	38.6		16.22
Panhard Knight VK122	Vee 60	Wat	12-5.52x6.69	1920	5.4	124	450-1500	525-1800	1500	1500				1202	2.7	2		M	2							
Renault 12Ke	Vee 60	Wat	12-5.28x7.09	1857	5.3	132	500-1650	520-1650	1650	1650	.50	.03	42	1092	2.2	4-Zenith	SEV	M	2	Viet	CA	75.1	48.9	41.4	27.1	17.17
Renault 12Ja	Vee 60	Wat	12-4.93x6.70	1524	5.6	134	450-1800	470-1800	1800	1800	.49	.03	37.5	772	1.7	2-Zenith	SEV	M	2	Viet	CA	63.9	39.0	33.1	24.4	15.36
Renault 12Jb	Vee 60	Wat	12-4.93x6.70	1524	5.6	129	500-2000	510-2000	2000	1505	.49	.03	41.5	838	1.7	2-Zenith	SEV	M	2	Viet	CA	66.8	39.0	33.1	24.4	15.36
Renault 12Kg	Vee 60	Wat	12-5.28x7.09	1857	5.6	132	550-1800	565-1800	1800	1800	.49	.03	46	1014	1.9	4-Zenith	SEV	M	2	Viet	CA	72.3	42.9	35.0	26.5	15.92
Renault 12Kh	Vee 60	Wat	12-5.28x7.09	1857	5.6	129	600-2000	615-2000	2000	1505	.49	.03	50	1092	1.8	4-Zenith	SEV	M	2	Viet	CA	74.6	42.9	35.0	26.5	15.92
Renault 12Mc	Vee 60	Wat	12-6.30x7.09	2653	5.0	125	700-1700	720-1700	1700	1700	.50	.03	59	1367	1.9	4-Zenith	SEV	M	2	Viet	CA	84.6	45.3	37.8	28.9	17.13
Renault 12Md	Vee 60	Wat	12-6.30x7.09	2653	5.0	122	700-1800	740-1800	1800	1350	.50	.03	59	1488	2.1	4-Zenith	SEV	M	2	Viet	CA	85.8	45.3	37.8	28.9	17.13
Salmson Ad6	Radial	Air	6-2.76x3.39	121	5.6		25-1900	27.5-	1900	1900	.55	.05		133	5.3	1-Zenith	Own	M	2		HC	16.9	25.9	25.9	Radial	3.34
Salmson Ad9	Radial	Air	9-2.76x3.39	182	5.6		40-2000	46-	2000	2000	.55	.05		154	3.9	1-Zenith	Own	M	2		HC	16.9	25.9	25.9	Radial	3.34
Salmson Ab9	Radial	Air	9-4.92x6.70	1140	5.2°	103	230-1700	250-	1700	1700	.55	.05		573	2.5	1-Clau°	Own	M	2		CA	29.7	46.5	46.5	Radial	5.6
Salmson Ac9	Radial	Air	9-3.94x5.12	561	5.0°		120-1800	133-	1800	1800	.55	.05		375	3.1	1-Clau°	Own	M	2		CA	24.3	37.4	37.4	Radial	5.1
Salmson Cm9	Radial	Wat	9-4.92x6.70	1140	5.4	115	260-1650	275-	1650	1650	.51	.05		552	2.1	1-Zenith°	Own	M	2		CA	29.8	46.5	46.5	Radial	5.7
Salmson Cm18	Radial	Wat	18-4.92x6.70	2280	5.4		500-1650	525-	1650	1650	.51	.05		1013	2.0	2-Zenith°	Own	M	2		CA	40.4	47.3	47.3	Radial	9.65
Talbot Matabele	Vee 60	Wat	12-4.81x6.30	1366	4.8	113	420-2000	435-2050	2000	1220	.51	.04		960	2.3	2-Clau	SEV	M	2	Own	CA	76.0	60.3	37.8	26.3	16.35
Talbot 720D	W	Wat	18-5.51x5.12	2190	5.5	127	720-2000	730-2100	2000	1000	.52	.05		1665	2.3	4-Zenith	SEV	M	4	Own	CA	84.7	43.7	44.1	31.7	18.9
B.M.W. VI	Vee	Wat	12-6.30x7.48	2800	6.0	106	450-1300	600-1600	1300	1300	.50	.03		1115	2 5	2		M	2							
Mercedes Benz	Horiz	Air	2-2.95x3.94	54	6.0		20-3000	22-3100	3000	1000	.66	.04	2⅛	106	4.9	1-Own	Bos	M	1	Own	HC	22.1	18.5	30.6	18.5	9.92
Siemens Sh 10	Radial	Air	5-3.94x4.73	287	5.6	107	62-1500	72-1750	1500	1500	.49	.18		258	3.6	1-Sum	Own	M	2	Bos	EM°	16.8	40.5	40.5	Radial	Radial
Siemens Sh 11	Radial	Air	7-3.94x4.73	402	5.6	107	86-1500	99-1750	1500	1500	.49	.18		316	3.3	2-Sum	Own	M	2	Bos	EM°	16.8	40.5	40.5	Radial	Radial
Siemens Sh 12	Radial	Air	9-3.94x4.73	517	5.6	107	111-1500	129-1750	1500	1500	.49	.18		382	3.0	2-Sum	Own	M	2	Bos	EM°	16.8	40.5	40.5	Radial	Radial
ITALIAN																										
Fiat A 20	Vee 60	Wat	12-4.53x5.91	1140	5.7	135	415-2200	433-2200	2200	2200	.45	.02	28	722	1.7	2-Own	Mar	M	2	Own	Gas°	57.2	33.3	25.6	21.7	15.75
Fiat A 22	Vee 60	Wat	12-5.32x6.30	1683	5.5	133	550-2000	572-2000	2000	2000	.47	.03	39	953	1.7	2-Own	Mar	M	2	Own	Gas°	63.0	37.6	28.4	24.6	18.10
Fiat A 25	Vee 60	Wat	12-6.70x7.88	3323	5.0	122	900-1800	935-1800	1800	1800	.51	.05	68	1767	1.9	3-Own	Mar	M	4	Own	Gas°	80.1	46.7	36.1	30.4	20.95
Isotta Frasch. Asso	Vee 60	Wat	12-5.52x5.91	1715	5.5°	126	500-2000	600-2200	2000	2000°	.47	.03		882°	1.5	4-Zenith	Mar	M	2	Own	CA	80.7	37.2	31.9	22.4	17.33
Minerva 8V-26	Vee 90	Wat	8-4.13x5.92	1363	5.4	145		178-1800	1600	1600	.50	.04	12	507	2.8	d-Zenith	Scin	M	2	Scin	HM	52½	40.2	35.9	21.85	14½
Sauda-Cappa 18	Vee 60	Wat	12-4.73x5.32	1120			-1600		1600	1130				830	2.1											
Breitfeld-Danek BD	Vee 60	Wat	12-6.30x7.48	2800			450-1400		1400	1400	.43			1215	2.7											
Breitfeld-D. Perun	Vert	Wat	6-6.30x7.48	1400			240-1400		1400	1400	.42	.03		695	2.9											
Caffort	Horiz	Wat	12-5.72x5.91	1820	5.3		500-2000		2000	1163	.55	.04		1325	2.7											
Walter 60	Radial	Air	5-4.13x4.72	264	4.5	127	60-1400		1400	1400	.51	.03		225	3.8	1-Solex	Scin	M	2	None	PS	19.5	38.9	38.9	Radial	Radial
Walter 85	Radial	Air	7-4.13x4.72	370	4.5	130	85-1400		1400	1400	.51	.03		280	3.3	1-Zenith	Scin	M	2	None	PS	20.7	38.9	38.9	Radial	Radial
Walter 110	Radial	Air	9-4.13x4.72	475	4.5	126	110-1450		1450	1450	.51	.03		336	3.0	1-Zenith	Scin	M	2	None	PS	20.7	38.9	38.9	Radial	Radial
Walter W3-185	Vert	Wat	6-5.92x7.10	1173	6.3	91	185-1360		1360	1360	.49	.03		633	3.3	1-Spec	Bos	M	2	None	PS	63.8	40.2	19.7	27.4	
Walter W4-240	Vert	Wat	6-6.30x7.48	1400	7.2	97	240-1400		1400	1400	.49	.03		684	2.8	1-Spec	Bos	M	2	None	PS	63.8	40.2	19.7	27.4	

ABBREVIATIONS:
†—Outside diameter of cyls. for radial engines.
‡—Inverted.
*—Bolt hole Circle diameter
§—1926 Specifications.
°—Also others,
B—Battery
Berl—Berling.
BM—Battery and Magneto.
Bos—Bosch.
CA—Compressed Air.
Clau—Claudel
d—Dual.
Ducel—Ducellier.
Ecl—Eclipse Bendix.
EM—Electric Motor.
HC—Hand crank.
HM—Hand Magneto,
Horiz—Horizontal.
Imp—Impulse,
In—Inertia.
M—Magneto.
Mar—Marelli
Opt—Optional.
PS—Propeller Swing.
Scin—Scintilla.
Siem—Siemens.
Spec—Special.
Spli—Splitdorf.
Strom—Stromberg.
Var—Various.
Vert—Vertical.
W—3 banks of cylinders.
Wat—Water.
Watf—Watford.
Winfd—Winfield.

Commercial Airplanes

COUNTRY	PLANE MAKE AND MODEL	Designed for	Net Pay Load (Lbs.)	Cargo Compartment (Cu. Ft.)	Total Seat. Capacity and No. of Passengers	Pass. Compartment Open or Cabin?	Price at Factory (Dollars)	Type	Land or Sea-Plane?	POWER PLANT: Number of Engines Used with Make and Model	POWER PLANT: Total H.P.	POWER PLANT: Cooling Type and Cyl. Arrangement	POWER PLANT: Propeller R.P.M	PERFORMANCE: Speed: Maximum (M.P.Hr.)	PERFORMANCE: Speed: Cruising: M.P.Hr.	PERFORMANCE: Speed: Cruising: Reserve Hp.	PERFORMANCE: Speed: Landing (M.P.Hr.)	PERFORMANCE: Climb in first minute (Ft.)	PERFORMANCE: Endurance (Hrs.)	DIMENSIONS (Ft. Ins.): Overall: Length	DIMENSIONS (Ft. Ins.): Overall: Height	DIMENSIONS (Ft. Ins.): Wings: Span: Upper	DIMENSIONS (Ft. Ins.): Wings: Span: Lower	DIMENSIONS (Ft. Ins.): Wings: Chord: Upper	DIMENSIONS (Ft. Ins.): Wings: Chord: Lower
AMERICAN	Alexander.Eaglerock	Pa	800	23½	3-2	OpC	2475	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1400	97	85	15	30	600	5½	24-5	9-4	36-0°	38-0°	5-0	5-0
	American Eagle	Adv	450	55	3-2	OpC	2445	Tr.Bi.	Land.	1-Hispano 1A	90	W-Vee	1450	104	80	....	30	500	5	24-5	8-0	30-2	30-2	5-2½	5-2½
	Buhl Airster	Mail	800	32	3-2	Opt.	9500*	Tr.Bi.	Land.	1-Wright J	200	A-Rad.	2000	125	100	50	45	1000	5	24-8	11-0	35-8	35-8	4-7	4-7
	Chicago M-B24	Pa	900	....	5-4	Cab.	5000	Tr.Mo	Land.	1-Hispano 180	180	W-Vee	1700	135	130	....	40	....	4½	22-6	8-0	40-0	None.	7-0	None.
	CurtissCarrierPigeon	Mail	1000	56	1-0	No.	.....	Tr.Bi.	Land.	1-Liberty 12	400	W-Vee	1700	121	105	....	56	800	5	28-10	12-1	39-2	41-11	6-6	6-6
	§Douglas C-2	Pa,Fr	....	....	9-8	Cab.	.....	Tr.Bi.	Land.	1-Liberty 12	400	W-Vee	1700	116	100	....	46	....	....	36-0	14-0	60-0	60-0	.....	.....
	Eberhart EC-1	Comm	360	22	3-2	OpC	.....	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1400	96	85	30	35	500	6	23-0	8-9	32-0	30-0	5-2¼	5-2¼
	Edo Mololo	Pa	540	No.	4-3	Cab.	.....	Tr.Mo	FlBt.	1-Anzani	75	A-Rad.	1400	85	65	....	44	....	6	24-7½	9-5	45-4	None.	5-6	None.
	§Elias M-1	Mail	....	....	1-0	None	.....	Tr.Bi.	Land.	1-Liberty 12	400	W-Vee	1700	130	105	....	50	....	4½	28-0	10-8	40-0	40-0	6-6	6-6
	Fairchild FC-1	Pa,Ma,Pho	330	60	3-2	Cab.	.....	Tr.Mo	Land.	1-Curtiss OX5	90	W-Vee	1400	97	75	10	42½	350	4¾	30-10	9-11	43-10	None.	7-0	None.
	Fairchild FC-1A	Pa,Ma,Pho	435	60	3-2	Cab.	.....	Tr.Mo	Land.	1-Wright J4B	200	A-Rad.	1800	121	100	....	42½	1100	3½	30-2	9-8	43-10	None.	7-0	None.
	Fokker S3W	Pa	360	....	3-2°	OpC	.....	Tr.Bi.	Land.	1-Wright J4	200	A-Rad.	1800	118	95	....	40	1000	4	26-5	10-2	35-4	29-0	5-4	4-0
	Fokker F VII A	Pa,Ma,Fr.	2100	493	10-8	Cab.	.....	Tr.Mo	Land.	1-Liberty 12	400	W-Vee	1750	115	95	....	48	650	6	45-0	12-7	63-3	None.	12-6m	None.
	Fokker. F VII a3M	Pa,Ma,Fr.	2340	493	10-8	Cab.	.....	Tr.Mo	Land.	3-Wright J4	600	A-Rad.	1800	122	100	220	50	860	5	49-2	12-9	63-3	None.	12-6m	None.
	Fokker Universal	Pa,Ma,Fr.	800	146	5-4	Cab.	.....	Tr.Mo	Land.	1-Wright J4	200	A-Rad.	1800	118	95	....	42	800	5	33-0	8-0	47-9	None.	8-6m	None.
	Ford Stout 4 AT	Pa,Ma,Fr.	2500	400	14-12	Cab.	37500	Tr.Mo	Land.	3-Wright J5	600	A-Rad.	1800	121	100	250	58	600	5	49-0	12-8	68-10	None.	12-10m	None.
	Heath Standard. J1	Pa	300	....	3-2	OpC	1250	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1450	60	60	....	35	350	3½	24-0	.....	44-0	32-0	6-0	6-0
	Heath Super. Stdd.	Pa	300	....	3-2	OpC	1250	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1450	60	60	....	38	500	3½	20-0	.....	32-0	32-0	6-0	6-0
	Heath HS5	Pa	600	....	5-4	½E.	2500	Tr.Bi	Land.	1-Hispano 150	150	W-Vee	1500	75	75	....	38	550	3	24-0	.....	44-0	44-0	6-0	6-0
	Heath Favorite	Pa	300	....	3-2	OpC	2000	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1450	85	80	....	40	600	5	20-0	.....	33-0	29-0	5-0	5-0
	Huff Daland. Petrel	Pa	400	....	3-2	OpC	.....	Tr.Bi.	Conv.	1-Wright J5	220	A-Rad.	1800	110	.....	....	45	1000	....	26-4	10-0	35-0	26-4	6-0	4-6
	Ireland Meteor. MC	Pa	480	30	4-3	OpC	3500	Tr.Bi.	Land.	1-Curtiss° OX5	90°	W-Vee	1625	98	86	20	42	400	5	24-0	9-1	31-0	31-0	5-0	5-0
	Ireland Comet. CC	Pa	350	22½	3-2	OpC	2000	Tr.Bi.	Land.	1-Curtiss° OX5	90°	W-Vee	1625	96	83	20	43	400	6	25-10	10-2	36-0	36-0	5-0	5-0
	Kent'cky CardinalS3	Comm	300	6	3-2	OpC	1980	Tr.Bi	Land.	1-Curtiss OX5	90	W-Vee	1400	105	95	....	40	500	3½	23-8	7-5	34-7	21-0	5-4	2-4
	King Bird	Comm	640	40	4-3	OpC	2500	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1400	95	80	10	30	600	5½	25-4	9-0	32-0	35-0	5-0	5-0
	§Loening Amphib.	Pa,Fr	....	....	5-4	OpC	.....	Tr.Bi.	Amph.	1-Liberty Invert	400	W-Vee	1700	125	105	....	50	....	6	34-0	12-3	45-0	45-0	6-0	6-0
	§Mercury MA-4	Mail	....	....	1-0	None	.....	Tr.Bi	Land.	1-Wright J4	200	A-Rad.	1800	132	112	....	52	....	4	21-6	9-10	32-9½	32-9¾	5-0	5-0
	§Mercury CW-4	Pa,Fr	....	....	3-2	OpC	.....	Tr.Bi	Land.	1-Curtiss OX5	90	W-Vee	1450	90	75	....	49	....	3¾	21-5⅝	8-11½	36-0	36-0	5-0	5-0
	Nich. Beazley J1	Pa	400	....	3-2	OpC	.....	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1450	85	5	....	30	....	....	....	....	31-6	31-6	6-0	6-0
	Pacer Thunder	Comm	51	....	4-3	OpC	2190	Tr.Mo	Land.	1-Hispano A	150	W-Vee	1450	127	122	....	41	1020	3½	20-4	7-10	35-2	None.	5-4	None.
	Pacer Hawk	Pa	340	....	3-2	OpC	1700	Tr.Mo	Land.	1-Curtiss OX5	90	W-Vee	1400	90	75	....	38	800	3½	23-7	7-3	36-8	None.	5-3	None.
	Pitcairn Fleetwing	Pa	680	48	5-4	OpC	8500	Tr.Bi.	Land.	1-Curtiss C6	180	W-Ver.	2200	110	88	70	48	800	2½	25-11	9-7	38-0	33-1	5-2	5-2
	Pitcairn Orowing	Pa	340	19	3-2	OpC	2000	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1400	90	70	37	45	600	4¼	26-2	9-1	36-0	35-11½	5-0	5-0
	Ryan M-1	Comm	600	42	3-2	OpC	8400°	Tr.Mo	Land.	1-Wright° J4A	212	A-Rad.	1750	135	110	70	45	1200	4¾	24-0	8-0	36-0	None.	7-0	None.
	Sikorsky S-35	Pa,Fr	6000	360	14-12	Cab.	.....	Tr.Bi.	Land.	3-	1275	A-Rad.	1600	145	125	447	65	740	8	44-0	16-0	101-0	76-0	8-4	4-2
	Sikorsky S-36	Pa,Fr	800	55	7-6	Cab.	.....	Tr.Mo	Amph.	2-Wright J	400	A-Rad.	1600	125	100	120	45	1100	4	34-0	10-7	56-0	None.	7-0	None.
	Stinson Detroiter	Pa,Ma,Fr.	825	56	4-3	Cab.	11000	Tr.Bi.	Land.	1-Wright J4B	200	A-Rad.	1800	125	105	34	45	800	5¼	28-10	10-7	35-10	35-10	5-3	5-3
	Travel Air B	Pa	340	22	3-2	OpC	3500	Tr.Bi.	Land.	1-Curtiss° OX5	90°	W-Vee	1650	100	98	50	37	410	4	23-6	8-6	33-0	29-0	5-6	4-8
	Travel Air BW	Pa, Mail	400	22	3-2	OpC	9500	Tr.Bi.	Land.	1-Wright J4B	200	A-Rad.	1800	135	132	140	40	1300	3½	22-8	8-6	33-0	29-0	5-6	4-8
	Travel Air CH	Pa, Mail	680	55	5-4	Cab.	6500	Tr.Bi.	Land.	1-Wright Hisso E	180	W-Vee	1750	110	109	100	40	600	4	26-6	9-11	42-0	31-0	6-0	5-0
	Travel Air CW	Pa, Mail	800	60	5-4	Cab.	10500	T.Bi.	Land.	1-Wright J4B	200	A-Rad.	1800	120	118	130	40	800	3½	25-8	9-11	42-0	31-0	6-0	5-0
	§Waco 9	Pa,Fr	700	....	3-2	OpC	2250	Tr.Bi.	Land.	1-Curtiss OX5	90	W-Vee	1450	100	85	....	30	....	5	23-4	8-10	29-0	29-0	5-3	5-3
	Waterhouse Cruzair	Fr	731	50	3-2	OpC	9500	Tr.Mo	Land.	1-Wright J4	200	A-Rad.	1700	138	117	85	45	1200	5½	23-10	8-0	36-0	None.	7-0	None.
	Waterhouse. Romair	Pa,Ma,Fr.	688	27	3-2	OpC	9500	Tr.Bi.	Land.	1-Wright J4	200	A-Rad.	1700	130	117	85	40	1200	5½	23-6	9-0	30-0	30-0	5-0	5-0
	§Woodson 4-B	Pa,Fr	720	....	5-4	OpC	.....	Tr.Bi.	Land.	1-Salmson 9ZM	260	W-Vee	.....	.....	100	....	38	600	5	28.2	10-1	42-0	44-0	5-6	5-6
BRITISH	ArmstrongW.Argosy	Pa	4500	135	22-20	Cab.	110000	Tr.Bi.	Land.	3-Armstrong S.Jaguar	1155	A-Rad.	1700	110	95	300	55	600	4	65-9½	19-10	89-4	90-7½	12-0	10-0
	Avro Andover	Pa,Fr	2880	420	14-12	Cab.	.....	Tr.Bi.	Land.	1-Rolls R Condor	690	W-Vee	1055	110	92	....	52	540	6	51-8	16-0	68-0	68-0	8-6	8-6
	Bristol Taxi	Pa	360	....	3-2	OpC	.....	Tr.Bi.	Land.	1-Bristol .Lucifer IV	130	A-Rad.	1700	88	69	....	50	410	3	24-10	9-3½	31-1	31-1	5-3	5-3
	Vickers Victoria	Pa	....	520	24-22	Cab.	.....	Tr.Bi.	Land.	2-Napier Lion	1000	W-W.	1450	104	85	....	48	430	10	59-6	17-9	86-6	86-6	13-0	13-0
	Short Calcutta	Pa	3540	....	18-15	Cab.	.....	Tr.Bi.	Fl.Bt.	3-Bristol. Jupiter VI	1380	A-Rad.	1700	121	.....	....	53	....	5½	65-0	22-3	93-0	.....	.....	.....
FRENCH	Avimeta 90	Pa	1810	123	9-8	Cab.	.....	Tr.Mo	Land.	1-Jupiter 9A1	420	A-Rad.	1700	124	109	105	62	500	5	40.1-	11.8-	62.4-	None.	8.87-	None.
	Avimeta 91	Pa	1105	42	7-6	Cab.	.....	Tr.Mo	Land.	1-Salmson 9A1	230	A-Rad.	1700	115	102	57	58	350	4½	31.5-	11.0-	55.9-	None.	8.87-	None.
	Avimeta 132	Pa	1770°	113	12-10°	Cab.	.....	Tr.Mo	Land.	3-Salmson 9A1	690	A-Rad.	1700	127	116	170	59	820	7	45.3-	12.1-	72.3-	None.	13.13-	None.
	Avimeta 134	Pa	2980	191	20-18	Cab.	.....	Tr.Mo	Land.	3-Salmson 9A1	690	A-Rad.	1700	126	115	170	59	870	7	51.9-	13.8-	85.4-	None.	13.13-	None.
	Avimeta 136	Pa	3970	247	24-22	Cab.	.....	Tr.Mo	Land.	2-Lorraine 28-III	1200	W-W.	1350	134	120	300	62	970	5	59.8-	17.7-	92.0-	None.	13.13-	None.
	Bechereau	Pa,Fr	....	....	8-7	Cab.	.....	Tr.Bi.	Land.	1-Salmson CM 18	500	W-Rad.	1650	118	.....	.....	.....	.....	.....	35 2-	.....	55.4-	.....	.....	.....
	Besson MB 36	Pa	.....	.....	16-14	Cab.	.....	Tr.Mo	Fl.Bt.	3-Gnome Rh. Jupiter	1260	A-Rad.	1700	112	.....	.....	.....	.....	.....	61.5-	15.4-	82.0-	None.	.....	None.
	Bleriot 165	Pa	3530	106	18-16	Cab.	.....	Tr.Bi.	Land.	2-Gnome Rh. Jupiter	840	A-Rad.	1700	112	.....	.....	.....	.....	.....	49.2-	14.8-	75.5-	75.5-	.....	.....
	Breguet 26	Pa,Fr	.....	.....	8-6	Cab.	.....	Tr.Se	Land.	1-Gnome Rh. Jupiter	420	A-Rad.	1700	127	.....	.....	.....	.....	.....	37.4-	.....	55.8-	.....	.....	.....
	C.A.M.S. 33	Pa	1540	282	8-6	Cab.	19000	Ta.Bi	Fl.Bt.	2-Hispano Suiza	550	W-Vee	1650	120	99	200	56	460	6	43.7-	15.1-	57.8-	57.8-	9.52-	8.54-
	Denhaut	Pa	.....	.....	10-7	Cab.	.....	Tr.Bi.	Amph.	2-Gnome Rh. Jupiter	840	A-Rad.	1700	109	99	....	56	....	8	52.5-	16.4-	78.8-	.....	.....	.....
	Farman Goliath. F60	Pa	2650	71	14-12	Cab.	.....	Tr.Bi.	Land.	2-Salmson CM 9	520	W-Rad	1650	97	81	215	43	390	7	48.6-	15.4	88.4-	88.4-	9.86-	9.86-
	Farman Jabiru. F121	Pa	2210	71	14-12	Cab.	.....	TP.Mo	Land.	4-Hispano Suiza	720	W-Vee	1800	130	112	270	53	560	4	45.0-	16.1-	62.4	None.	16.1-	None.
	Farman F 170	Pa	1765	67	9-8	Cab.	.....	Tr.Mo	Land.	1-Farman 12 WE	500	W-W.	1025	126	112	160	56	660	4	38.6-	10.5	52.8-	None.	11.5-	None.
	Farman F 70	Pa	1105	35	5-4	Cab.	.....	Tr.Bi.	Land.	1-Renault	300	W-Vee	1600	112	93	125	47	660	4	32.8	11.2-	49.2-	45.0-	6.07-	6.20-
	Latecoere 15	Pa,Fr,Ma.	2290	124	8-4	Cab.	.....	Tr.Mo	Land.	2-	550	W-Vee	....	109	106	120	65	1250	5	38.9-	12.1-	59.1-	13.1-	9.85-	5.42-
	Latecoere 15 H	Pa,Fr,Ma.	1450	35	6-4	Cab.	.....	Tr.Mo	Seap.	2-	550	W-Vee	....	103	99	120	68	490	5	44.9-	13.7	59.1-	13.1-	9.85-	5.42-
	Latecoere 17	Pa,Fr,Ma.	2350	106	5-4	Cab.	.....	Tr.Mo	Land.	1-	380	A-Rad.	....	110	106	95	65	390	5	29.9-	12.5-	47.9-	None.	8.21-	None.
	Latecoere 21	Pa,Fr,Ma.	1560	71	7-4	Cab.	.....	Tr.Mo	Fl.Bt.	2-	840	A-Rad.	1700	110	93	110	65	530	8	37.8-	13.3-	72.3-	23.0-	13.13-	None.
	Levasseur	Pa,Fr	.....	.....	8-6	Cab.	.....	Tr.Bi.	Land.	1-Gnome Rh. Jupiter	420	A-Rad.	1700	112	.....	.....	.....	.....	4	32.8-	12.6-	47.5-	46.0-	.....	.....
	Penhoet	Pa	4420	....	24-20	Cab.	.....	Tr.Mo	FlBt.	5-Gnome Rh. Jupiter	2100	A-Rad.	1700	112	98	....	56	....	7	88.8-	19.7-	131.3	None.	2.96m-	None.
	S.E.C.M. Amiot 150	Pa,Fr	.....	.....	16-14	Cab.	.....	Tr.Mo	Land.	3-Hispano Suiza	1050	W-	1800	146	.....	.....	.....	.....	4¼	57.2-	15.0-	78.4-	None.	.....	None.
	Schreck.F.B.A. 21	Comm	.....	.....	6-4	Cab.	.....	Tr.Bi.	FlBt.	1-Lorraine 12Eb	450	W-W.	1850	115	104	.....	.....	.....	3½	34.6-	13.8-	50.5-	47.2-	6.2-	6.2-
GERMAN	Albatros L 72 b	Mail	1040	106	1-0	None	.....	Tr.Bi	Land.	1-B.M.W. IV a	230	W-Ver.	1400	106	96	....	50	470	4½	32.8-	10.5-	42.7-	40.1-	6.04-	6.04-
	Albatros L 73	Pa	1760	88	10-8	Cab.	.....	Tr.Bi.	Land.	2-B.M.W. IV a	460	W-Ver.	1400	99	87	....	56	276	4½	48.9-	15.0-	64.7-	64.7-	7.88-	7.88-
	Caspar C 29	Mail	220	42	2-1	OpC	.....	Tr.Bi.	Seap.	1-Hispano Suiza	400	W-Vee	2000	118	106	115	59	980	4	32.8-	13.5	42.8-	42.8-	42.8-	6.24-
	Caspar C 32	Fr,Dust	1270	71	2-1	OpC	.....	Tr.Bi.	Land.	1-B.M.W. IV	230	W-Ver.	1400	99	93	40	47	490	4	29.8-	12.8-	49.3-	49.3-	6.24-	6.24-
	Donier Do-B	Pa	.....	53	12-10	Cab.	.....	Tr.Mo	Land.	1-B.M.W. VI	450	W-	1400	121	109	....	53	....	7¾	40.7-	11.5-	None	64.4-	None.	10.7-
	Dornier Do-O	Pa	.....	.....	12-10	Cab.	.....	TP.Mo	FlBt.	2-Napier Lion	900	W-W.	....	121	109	....	56	....	6	57.3-	14.8-	None	73.9-	None.	14.1-
	Dornier Do-R	Pa	.....	.....	25-23	Cab.	.....	TP.Mo	FlBt.	2-Rolls R. Condor	1300	W-Vee	907	118	.....	.....	56	....	11	87.3-	17.1-	None	93.7-	None.	17.4-
	Dornier Do-F	Pa	.....	.....	20-18	Cab.	.....	TP.Mo	Land.	2-Rolls R. Condor	1300	W-Vee	907	109	.....	.....	.....	.....	.....	66.2-	20.2-	None	93.7-	None.	17.4-
	Focke-Wulf A 16	Pa	518°	56°	4-3°	Cab.	6450°	Tr.Mo	Land.	1-Siemens Sb 5°	75°	A-Rad.	1500	84°	81	25	43	220	3½	27.9°	8.5-	46.0-	None.	7.55-	None.
	Focke-Wulf GL 18	Pa	507°	64	4-3°	Cab.	9400°	Tr.Mo	Land.	2-Own L 1 a°	150°	A-Ver.	1650	93	90	75°	50	240	3	29.9-	8.5-	52.5-	None.	7.55-	None.
	Heinkel HD 39	Freight	.....	.....	2-1	OpC	.....	Tr.Bi.	Land.	1-B.M.W. IV	230	W-Ver.	1400	105	.....	.....	45	.....	5	32.8-	12.1-	48.7-	48.7-	7.23	6.12-
	§Junkers F 13	Pa,Fr	885	.....	6-5	Cab.	.....	Tr.Mo	Conv.	1-Own L 2	195	W-Ver.	.....	99	.....	.....	50	....	4½	33.2-	11.8-	None	58.4-	None.	9.85-
	§Junkers K 16	Pa,Fr	620	....	3-2	.....	.....	Tr.Mo	Land.	1-Siemens Halske	100	A-Rad.	.....	90	.....	.....	53	....	2	26.4-	9.0-	None	36.1	None.	5.91-
	§Junkers G 23	Pa,Fr	.....	.....	12-10	Cab.	.....	Tr.Mo	Conv.	Various	395	W-Ver.	.....	.....	.....	.....	.....	.....	.....	52.2-	18.1-	None	.....	None.	.....
	§Junkers G-24L	Pa,Fr	.....	.....	12-10	Cab.	.....	Tr.Mo	Conv.	3-Own	690	W-Ver.	.....	109	.....	.....	65	....	9	50.2-	17.7-	None	68.6-	None.	.....
	L.F.G. V 130	Pa	820	....	6-4	Cab.	6000	Tr.Bi.	Land.	1-Benz°	200°	W-Ver.	.....	84	.....	.....	43	.....	.....	33.8-	11.4-	57.5-	57.5-	.....	.....
	L.F.G. V 13	Pa	.....	.....	6-4	Cab.	7200	Tr.Bi.	Seap.	1-Benz°	185°	W-Ver.	.....	84	.....	.....	.....	....	3	35.8-	12.7	57.5-	57.5-	.....	.....
	L.F.G. V 101	Pa	.....	.....	6-4	Cab.	12000	Tr.Mo	Seap.	1-Benz IIIa	185	W-Ver.	.....	106	.....	.....	.....	.....	.....	32.4-	11.5-	51.2-	None.	.....	None.
	L.F.G. V 59	Pa	.....	.....	6-4	Cab.	15000	Tr.Mo	Seap.	1-B.M.W. IV	230	W-Ver.	1400	94	84	....	43	....	.....	37.4-	13.5-	None	62.4-	None.	Taper.
	Rohrback Roland	Pa,Fr	2020	....	12-10	Cab.	.....	Tr.Mo	Land.	3-B.M.W. IV	690	W-Ver.	1400	121	.....	.....	62	....	5	53.5-	14.8-	85.3-	None.	.....	None.
	Fokker F VII	Pa	2210	106	10-8	Cab.	.....	Tr.Mo	Land.	1°-GnomeRh.°Jupit'r	460°	A-Rad.	1800	115	99	130	56	460	7	47 7-	12.8-	63.3-	None.	12.5m-	None.
	Caproni Civili	Pa	.....	288	12-10	Cab.	.....	TP.Bi.	Land.	2-	1000	W-	.....	112	99	....	43	720	3	50.5-	18.4-	59.1-	82.1-	10.7-	12.1-
	§Macchi M 24 B	Pa,Fr	.....	.....	9-8	Cab.	.....	TrBi.	FlBt.	2-Lorraine	800	W-Vee	.....	109	.....	.....	62	.....	5	46.1-	15.1-	71.5-	.....	9.04-	.....

ABBREVIATIONS:
§—1926 Specifications.
•—Price with open cockpit enclosure $500 extra.
▸—Also others.

½En—Semi-enclosed. A—Air. A—Ailerons. Adv—Advertising. a-l—Axle-less.

Al—Aluminum. Al.T—Aluminum tubing. A-M—All metal construction. Amph—Amphibian.. A&S—Aluminum and Steel

BB—Battery booster. Box—Box beam (wood). CA—Compressed air. Cab—Cabin. Comm—Commercial. Conv—Convertible. d-a—Divided axle. Det—Quick detachable. Dust—Dusting. E—Elevators. EM—Electric motor. Fab—Fabric. FlBt—Flying boat. Fold—Folding. Fr—Freight. Frt—Front. HC—Hand Crank. HM—Hand magneto. Hyd—Hydraulic. In—Inertia. L—Lower wing.

of the World

AREAS (Sq. Ft.)			MATERIALS						Oil & Fuel Consompt'n		WEIGHTS (Lbs.)				WING CHARACTERISTICS						CONTROL SURFACES			MISCELLANEOUS							PLANE MAKE AND MODEL
			Wings			Fuselage										Incidence																
Main Wings	Tail-Horizontal	Tail-Vertical	Ribs	Spars	Covering	Structure	Covering	Does covering take part of stress? a	Oil (gals. 1Hr.)	Fuel (gals. 1Hr.)	Empty	Loaded	Per Horsepower	Per Sq. Foot	Folding or Quick Detachable?	Upper (°)	Lower (°)	Stagger (Ins.)	Dihedral (°)	Sweepback (°)	Balanced?	Stabilizer Adjustable in Flight?	Tail Surfaces Interchangeable?	Starter Type	Power Plant Detach. as Unit?	Generator Fitted?	Cabin Heater Fitted?	Undercarriage Rigid or Axle-less?	Brakes Fitted?	Location of Pilot	
360°	37¾	13¾	Wood.	Wood.	Fab..	St.T.	Fab..	Yes	¼	6	1250	2050	22.8	5.7	Det.	⅜	⅜	15	1	0	R..	No..	No..	PS..	Yes.	No..	No..	Rig..	No..	Aft.	Alexander Eaglerock
300	30	9	Wood.	Wood.	Fab..	St.T.	Fab..	No..	½	8	1139	1950	21.7	6.5	Det.	1½	1½	15	2¼L	0	....	No..	No..	PS..	Yes.	No..	No..	a-l..	No..	Aft.	American Eagle
303	38	15	Al....	Wood.	Fab..	St.T.	Fab..	No..	....	....	2050	3276	16.4	10.8	Opt.	0	0	0	3	0	R..	Yes.	No..	In..	Yes.	No..	Opt.	a-l..	Yes.	Aft.	Buhl Airster
280	40	10	Wood.	Wood.	Fab..	St.T.	LaWd.	Yes.	....	17	1500	3000	16.7	10.7	Det.	3	No.	No..	0	0	No..	No..	No..	In..	No..	No..	Yes.	a-l..	Yes.	Aft.	Chicago M-B24
505	66	28	Wood.	Wood.	Fab..	St.T.	Fab..	No..	....	31	3605	5620	14.1	11.1	Det.	0	0	0	4L	0	....	Yes.	Yes.	EM..	Yes.	Yes	No..	a-l..	No..	Aft.	CurtissCarrierPigeon
800	....	....	....	....	....	....	....	....	....	....	3900	6600	16.5	8.3	No..	....	....	....	....	....	RE..	....	....	HC..	....	Yes.	....	a-l..	No..	Frt.	§Douglas C-2
261	....	....	Wood.	Wood.	Fab..	St.T.	Fab..	No.	....	8½	1150	1920	21.3	7.4	No.	2½	2½	12	1½L	0	A..	No..	No..	PS..	No.	No..	No.	a-l..	No..	Aft.	Eberhart EC-1
226	36½	19½	Wood.	Al....	Fab..	Al....	Al....	Yes.	½	6	1100	2050	27.3	9.1	Det.	5	0	No.	6	0	No..	No..	E..	HM..	Yes.	No..	No..	No....	No..	Frt.	Edo Malolo
497	61	20	....	....	....	....	....	....	....	19½	2857	4667	11.6	9.4	Det.	½	½	0	1½	0	R....	....	....	PS..	....	....	No..	....	No.	Aft.	§Elias M-1
290	38¾	13½	LaWd.	LaWd.	Fab..	St.T.	Fab..	No..	.3	9¼	1606	2341	26.0	8.1	Fold	2½	No.	No..	1½	0	No..	Yes.	No.	BB..	Yes.	No..	No..	a-l..	No..	Cab	Fairchild FC-1
290	38¾	13½	LaWd.	LaWd.	Fab..	St.T.	Fab..	No..	½	12	1710	2550	12.8	8.8	Fold	2½	No.	No..	1½	0	No..	Yes.	No.	In..	No..	No..	No..	a-l..	No..	Cab	Fairchild FC-1A
285	....	....	Wood.	Wood.	Fab..	St.T.	Fab..	No..	....	....	....	....	....	....	No.	....	....	....	....	....	ARE.	No..	No..	In..	Yes.	No..	No..	Rig..	No..	Frt.	Fokker S3W
630	63½	24¾	Wood.	Wood.	Wood.	St.T.	Fab..	No..	....	....	....	....	....	....	Det.	....	No..	No..	½	0	RE.	Yes.	No.	HC.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Fokker F VII A
630	63½	24¾	Wood.	Wood.	Wood.	St.T.	Fab..	No..	2½	61	5100	8800	14.7	14.0	Det.	....	No..	No..	½	0	RE.	Yes.	No.	In..	Yes.	Yes.	Yes.	a-l..	Yes.	Frt.	Fokker. F VII a3M
330	....	....	Wood.	Wood.	Wood.	St.T.	Fab..	No..	....	....	....	....	....	....	Det.	....	No.	No..	....	....	RE.	Yes.	No.	In..	No.	No..	Yes.	a-l..	Yes.	Frt.	Fokker Universal
672	....	....	Al....	Al....	Al....	Al....	Al....	Yes.	1	40	5200	9270	15.4	13.8	Det.	0	0	No.	No.	No.	R....	Yes.	No.	....	Yes.	No..	Yes	a-l..	Hyd	Frt.	Ford Stout 4 AT
465	?	?	Wood.	Wood.	Fab..	Wood.	Fab..	No..	¼	8	1500	2200	24 4	4.7	No..	3½	3½	8	2	7	No..	No.	No..	PS.	No.	No.	No.	Rig.	No.	Aft.	Heath Standard. J1
360	?	?	Wood.	Wood.	Fab..	Wood.	Fab..	No..	¼	8	1450	2150	23.9	6.0	No..	3½	3½	8	2	7	No..	No.	No..	PS..	No.	No..	No.	Rig..	No.	Aft.	Heath Super. Stdd.
525	?	?	Wood.	Wood.	Wood.	Wood.	Fab..	No..	1	12	1700	2450	16.3	4.7	No..	3½	3½	10	2	7	Yes.	No.	No..	HM..	No.	No..	No.	Rig..	No.	Aft.	Heath HS5
300	?	?	Wood.	Wood.	Fab..	Wood.	Fab..	No..	¼	8	1250	1950	21.7	6.5	No..	2	2	15	4L	0	No..	No.	No.	PS..	No.	No.	Yes.	Rig..	No.	Aft.	Heath Favorite
294	36¼	12	Wood.	Wood.	Fab..	St.T.	Fab..	No..	....	....	1707	2607	11.9	8 9	Det.	1½	1½	19	0	0	R..	No.	No..	In..	Yes.	Yes	No.	z-l..	No.	Aft.	Huff Daland. Petrel
285	33½	11	LaWd.	Wood.	Fab..	St.T.	Fab..	No..	⅛	7	1253	2163	24.0	7.6	No..	0	0	0	2¼L	0	ER.	Yes.	E..	PS..	Yes.	No.	No..	a-l..	Opt.	Frt.	Ireland Meteor. MC
330	35½	15¼	LaWd.	Wood.	Fab..	LaWd.	LaWd.	Yes.	⅛	7	1365	2200	24.4	6.7	No..	3½	3½	12	2¼L	0	No..	No.	E..	PS..	Yes.	No.	No..	Rig..	Opt.	Aft	Ireland Comet. CC
235	24	17	Wood.	Wood.	Fab..	St.T.	Fab..	No..	½	9	1000	1700	18.9	7.2	Det.	3	0	20	3L	0	No..	No.	No.	PS..	Yes.	No.	No..	a-l..	No.	Aft.	Kent'cky CardinalS3
320	36	14	Wood.	Wood.	Fab..	St.T.	Fab..	No..	½	7	1200	2000	22.2	6.3	No..	2	2	10	3L	0	R..	Yes.	No.	PS..	Yes.	No.	No..	Rig..	No.	Aft.	King Bird
496	71½	27½	.....	.....	.....	.....	.....	.....	.....	23	3400	5560	13.9	11.2	Det.	3	3	12	3	0	ARE.	.....	.....	EM.	.....	.....	.....	Ret.	No.	.....	§Loening Amphib.
305	29¼	14¾	.....	.....	.....	.....	.....	.....	.....	13	1485	2495	12.5	8.2	No..	0	1½	29½	2L	0	AR.	.....	.....	HC.	.....	.....	.....	.....	No.	Aft.	§Mercury MA-4
335	24½	10½	.....	.....	.....	.....	.....	.....	.....	8	1364	2064	22.9	6.2	No..	4	4	13¾	0	0	.....	.....	.....	PS.	.....	.....	No.	.....	.....	.....	§Mercury CW-4
.....	.....	.....	Wood.	Wood.	Fab..	Wood.	Fab..	No..	¼	8	1275	2130	23.7	.....	.....	.....	.....	7	0	5	.....	.....	.....	PS.	No..	No..	No..	Rig..	No..	.....	Nich. Beazley J1
186	25	8¾	LaWd.	Wood.	Fab..	St.T.	Fab..	No..	.....	....	960	1860	12.4	10.0	Det.	0	No..	No..	0	0	No..	Yes.	AE.	HM..	Yes.	No..	No..	a-l..	Opt.	Aft.	Pacer Thunder
170	27	9	LaWd.	Wood.	Fab..	LaWd.	LaWd.	Yes.	.....	.....	760	1360	15.1	8.0	Det.	2½	No.	No..	0	0	No..	No..	E..	PS..	No.	No..	No.	Rig..	No.	Aft.	Pacer Hawk
351	39⅝	16⅝	Wood.	Wood.	Fab..	St.T.	Fab..	No..	⅛	15	1807	2877	16.0	8.2	Det.	1½	½	25	2	No.	No..	No.	No.	EM..	Yes.	No.	No..	Rig..	No.	Aft.	Pitcairn Fleetwing
338½	28½	10½	Wood.	Wood.	Fab..	St.T.	Fab..	No..	¼	9	1323	2045	22.8	6.2	Det.	2½	2½	14¾	1½	No.	No..	No.	No.	PS.	No.	No.	No.	Rig..	No.	Aft.	Pitcairn Orowing
252	32	10	Wood.	LaWd.	Fab..	St.T.	Fab..	No..	.....	....	1500	.....	.....	.....	Det.	0	No..	No..	0	0	R....	Yes.	No.	HC.	Yes.	No.	No.	Rig..	No.	Aft.	Ryan M-1
1095	92	49	Al....	Al....	Fab..	Al....	.....	No.	4½	72	9700	20000	15.7	18.3	Det.	3	2½	0	0	0	No..	Yes.	No.	CA.	Yes.	Yes.	Yes.	Rig..	No.	Frt.	Sikorsky S-35
420	52	29	Wood.	Wood.	Fab..	Wood.	Met..	Yes.	1	25	2900	4500	11.2	10.7	Det.	3	No.	No..	0	0	No..	Yes.	No.	In..	Yes.	No.	No.	Ret..	No.	Frt.	Sikorsky S-36
350	46	19¼	Al....	Wood.	Fab..	St.T.	Fab..	No..	....	....	1810	3287	16.4	9.4	No..	0	0	11	4	0	R..	Yes.	No.	In..	Yes.	No.	Yes	a-l..	Yes.	Cab	Stinson. Detroiter
296	34	12	Wood.	Wood.	Fab..	St.T.	Fab..	No..	⅛	8	1300	2050	22.8	6.9	Det.	2½	2½	29	1½L	0	AR.	Yes.	No.	PS..	No.	No.	No.	a-l..	No.	Aft	Travel Air B
296	34	12	Wood.	Wood.	Fab..	St.T.	Fab..	No..	⅛	14	1360	2300	11.5	7.8	Det.	2½	2½	29	1½L	0	AR.	Yes.	No.	HC.	Yes.	No.	No.	a-l..	No.	Aft.	Travel Air BW
384	39	14½	Wood.	Wood.	Fab..	St.T.	Fab..	No..	⅛	12	1650	2800	15.6	7.3	Det.	1	1	29	3L	0	AR.	Yes.	No.	HM..	Yes.	No.	No.	a-l..	No.	Aft.	Travel Air CH
384	39	14½	Wood.	Wood.	Fab..	St.T.	Fab..	No..	⅛	14	1550	2800	14.0	7.3	Det.	1	1	29	3L	0	AR.	Yes.	No.	HC.	Yes.	No.	No.	a-l..	No.	Aft	Travel Air CW
290	30	14	Wood.	Wood.	Fab..	St.T.	Fab..	No..	....	7	1040	1840	20.4	6.4	Det.	2	2	16	0	0	R..	No.	No.	PS..	No.	No.	No.	Rig..	Opt.	Aft.	§Waco 9
240	34	10½	Wood.	Box..	Fab..	St.T.	Fab..	No..	....	10¼	1540	2450	12.3	10.2	Det.	0	No..	No..	0	0	No..	Yes.	No.	HC.	Yes.	No.	No.	a-l..	No.	Aft.	Waterhouse Cruzair
265	30	10½	Wood.	Box..	Fab..	St.T.	Fab..	No..	....	10¼	1200	2200	11.0	8.3	No..	0	0	0	0	0	No..	Yes.	No.	HC.	Yes.	No.	No.	a-l..	No.	Aft.	Waterhouse. Romair
473	56	19¼	Wood.	Wood.	Fab..	.....	Fab..	No..	....	15	1800	3380	13.	7.1	No..	3	3	12	3L	0	R....	....	....	HM..	....	No..	No..	....	No..	....	§Woodson 4-B
1880	212	117½	Wood.	W&S.	Fab..	St.T.	Fab..	No..	3	63	10120	18000	15.6	9.6	No..	4½	4½	18½	3½	No.	Yes.	Yes.	No.	HC.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Armstrong W.Argosy
1064	142	29	M&W.	Wood.	Fab..	M&W.	W&F..	Yes.	....	35	6991	11500	16.7	10.8	Fold	4	4	....	3	7	RE..	Yes.	No.	Gas.	Yes.	Yes.	Yes.	Rig..	No.	Frt.	Avro Andover
292	37½	14¼	Wood.	Wood.	Fab..	Wood.	W&F..	No..	½	8	1420	2140	16.5	7 3	Det.	3	3	27½	2½	..	No..	Yes.	No.	HC.	Yes.	No.	No.	Rig..	No.	Frt.	Bristol Taxi
2166	205	63	Wood.	Wood.	Fab..	Wood.	Fab..	No..	2¾	66	10994	18460	18.5	8.5	Fold	5	5	No..	2½	6	AR.	Yes.	No.	HC..	No..	Yes.	....	Rig..	No..	Frt.	Vickers Victoria
.....	....	....	Al....	....	....	Al....	Al....	Yes.	....	....	....	19600	14.2	....	Det.	....	....	No..	....	0	ARE.	Yes	....	....	....	....	....	....	No....	No..	Frt.	Short Calcutta
495	38¾	18¼	Al....	Al....	Al....	Al....	Al....	No..	2	35	3200	6070	14.4	12.2	Det.	0	No..	No..	No..	No.	No..	No..	....	CA..	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Avimeta 90
431	38¾	83	Al....	Al....	Al....	Al....	Al....	No..	1½	17¼	2760	4520	19.6	10.5	Det.	0	No..	No..	No..	No.	No..	No..	....	CA..	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Avimeta 91
764	77½	38¾	Al....	Al....	Al....	Al....	Al....	No..	4¾	51½	5330	9270°	13 4	12.1	Det.	0	No..	No..	No..	No.	No..	No..	Yes.	CA.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Avimeta 132
937	77½	38¾	Al....	Al....	Al....	Al....	Al....	No..	4¾	51½	5850	11050	16.0	11.8	Det.	0	No..	No..	No..	No.	No..	No..	Yes.	CA.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Avimeta 134
1023	77½	38¾	Al....	Al....	Al....	Al....	Al....	No..	4	100	7280	13450	11.2	13.1	Det.	0	No.	No..	No..	No.	No..	No..	Yes.	CA.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Avimeta 136
647	....	....	Wood.	Wood.	Wood.	Wood.	Wood.	....	....	....	4050	7740	15 5	12.0	....	....	....	....	....	....	....	....	....	CA	....	....	....	....	....	Frt.	Bechereau
1400	....	....	Wood.	Wood.	.....	Wood.	.....	....	....	....	11300	17600	14.0	12.6	No..	....	....	....	....	....	....	....	....	CA.	....	....	....	None..	No..	Frt.	Besson MB 36
1280	....	....	....	....	....	....	....	....	....	....	6820	12000	14.3	9 4	No..	....	....	....	....	....	....	....	....	CA..	Yes.	....	....	d-a..	No..	Frt.	Bleriot 165
592	....	....	Met..	Met..	....	Met..	Met..	....	....	....	....	6220	14.8	10.5	....	....	....	....	....	....	....	....	....	CA.	....	....	....	d-a..	....	Frt.	Breguet 26
990	91½	56½	Wood.	Wood.	Fab..	Wood.	LaWd.	Yes	2	42¼	5730	9050	16.4	9.1	No..	2½	3	4	2½	0	S..	No..	No.	CA..	No..	Yes.	No.	None..	No.	Frt	C.A.M.S. 33
1250	....	....	Wood.	Wood.	Fab..	Wood.	....	....	....	....	7100	11530	13 7	9.2	Det.	....	....	....	....	....	....	....	....	EM..	Yes.	....	....	Ret.	No..	Frt.	Denhaut
1647	99	41¼	Wood.	Wood.	Fab..	Wood.	W&F..	No.	3½	34¼	5870	11400	21.9	6.9	....	0	0	0	0	0	R..	No..	....	PS.	Yes.	....	Yes.	....	....	Aft.	Farman Goliath. F60
872	85¼	46¾	Wood.	St.T.	Fab..	Wood.	W&F..	No.	4½	44¾	7070	11470	15.9	13.2	....	0	No..	No..	0	0	R..	Yes.	....	CA.	Yes	....	Yes	....	....	Aft.	Farman Jabiru. F121
566	58¼	28¼	Wood.	Wood.	Fab..	Wood.	W&F..	No	1½	31¾	4420	7320	14.6	12.9	....	0	No..	No..	0	0	R..	No..	....	EM.	Yes.	Yes.	Yes.	....	....	Aft.	Farman F 170
548	52¾	23¾	Wood.	Wood.	Fab..	Wood.	W&F..	No..	1¼	15¾	2930	4700	15.7	8.6	....	0	0	0	0	0	....	No..	....	CA.	Yes.	....	Yes.	....	....	Aft.	Farman F 70
628	87¼	34¼	Wood.	Al....	Fab.	AlT.	Al.	Yes.	2½	31¾	4280	7780	14.2	12.4	Det.	1	0	....	0	0	Yes.	Yes.	Yes.	HC.	No..	Yes.	Yes.	a-l..	No.	Frt	Latecoere 15
661	89¼	37½	Wood.	Al....	Fab..	AlT.	Al....	Yes.	2½	31¾	5210	7570	13.8	11.5	Det.	1	0	0	0	0	Yes.	Yes.	Yes.	HC.	No..	Yes.	Yes.	None..	No..	Frt.	Latecoere 15 H
452	107	31¼	Wood.	Al....	Fab..	AlT.	Al....	Yes.	1¾	19¾	2870	6010	15.8	13.3	Det.	1	No..	No..	0	0	Yes.	Yes.	Yes.	HM..	Yes.	Yes.	Yes.	Rig..	No..	Frt.	Latecoere 17
947	118	52	Wood.	Al....	Fab..	Wood.	Wood.	Yes.	2½	58	7720	12350	14.7	13.0	Det.	1	No..	No..	0	0	Yes..	Yes	Yes.	CA..	Yes.	Yes.	Yes.	None..	No..	Aft.	Latecoere 21
646	....	....	Wood.	Wood.	....	Wood.	....	....	....	....	3410	5940	14.1	9.2	Fold	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Frt.	Levasseur
2910	473	118	Wood.	W&S.	W&F.	W&S.	W&F..	No..	....	....	27000	39700	18.9	13.7	Det.	3	No..	No..	11	0	AE.	Yes.	....	CA..	Yes.	No..	No..	None..	No..	Frt.	Penhoet
1076	....	....	Met...	Met...	Fab..	Met...	....	....	....	....	8875	16040	15.3	14.9	....	....	No..	No..	....	....	R....	....	....	....	....	....	....	....	....	No..	Frt.	S.E.C.M. Amiot 150
575	....	....	....	....	....	....	....	....	....	....	4012	6261	13.9	10.9	....	....	....	....	....	....	....	....	....	HM..	....	....	....	None..	No..	Frt.	Schreck.F.B.A. 21
479	48½	9¾	A-M..	A-M..	Fab..	St.T.	Fab..	No..	.9	19¾	2760	4630	20.2	9.7	No..	2	2	....	3L	0	S..	Yes.	No.	PS.	No..	No..	No..	....	....	Frt.	Albatros L 72 b
990	126	25¾	A-M..	A-M..	Fab..	St.T.	Fab..	No..	1¾	39½	6730	10200	22.2	10.3	No..	0	0	....	3L	0	S..	Yes.	No.	CA.	No..	No..	Yes.	....	....	Frt.	Albatros L 73
511	47¾	24½	Wood.	LaWd.	Fab.	W&S.	Wood.	Yes.	1¾	23½	2960	4410	11.0	8.6	Det.	2	2	41	3L	0	RE.	No..	No..	CA..	Yes.	No..	No..	Rig..	No	Frt.	Caspar C 29
571	46¼	15	Wood.	LaWd.	W&F..	Wood.	Wood.	Yes.	.6	14½	2870	4850	21.1	8.5	Det.	2	2	41	1	0	RE.	No..	No..	HC..	No..	No..	No..	Rig..	No.	Aft.	Caspar C 32
667	....	....	Al....	Al....	Al....	Al....	Al....	Yes	....	....	4870	7520	16.7	11.3	Det.	No.	....	....	No.	....	....	....	....	....	....	....	....	....	....	Frt.	Dornier Do-B
1043	....	....	Al....	Al....	Al....	Al....	Al....	Yes	....	....	4530	12050	13.4	11.5	Det.	No.	....	....	No.	....	....	....	....	....	....	....	....	None..	No.	Frt.	Dornier Do-O
1539	....	....	Al....	Al....	Al....	Al....	Al....	Yes.	....	44	12840	20800	16.0	13.5	Det.	No.	....	....	No.	....	....	....	....	....	....	....	....	None..	No.	Frt.	Dornier Do-R
1539	....	....	Al....	Al....	Al....	Al....	Al....	Yes.	....	44	11290	18470	14.2	12.0	Det.	No.	....	....	No.	....	....	....	....	....	....	....	....	....	....	Frt.	Dornier Do-F
291	441°	113¼	LaWd.	LaWd.	Fab..	LaWd.	Fab..	No..	.8	5½	1260	2130	28.4	7.3	Det.	0	No..	No..	0	0	No..	No..	No.	HM..	No..	No..	Yes	d-a..	No.	Frt.	Focke-Wulf A 16
345	57	19½	LaWd.	LaWd.	Fab.	LaWd.	Fab..	No..	1½	11	1960	2980	19.9	8.6	Det.	0	No..	No..	0	0	R....	No..	No.	HM..	No..	No..	Yes.	d-a..	No.	Frt.	Focke-Wulf GL 18
549	....	....	....	....	....	....	....	....	....	....	3650	4530	19.7	8.3	No..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Heinkel HD 39
430	....	....	A-M..	A-M..	A-M..	A-M..	A-M.	Yes.	....	....	....	....	....	....	No..	No..	....	No..	....	....	....	....	....	....	....	....	....	....	....	Frt.	§Junkers F 13
163	....	....	A-M..	A-M..	A-M..	A-M..	A-M.	Yes.	....	....	....	....	....	....	No..	No..	....	No..	....	....	....	....	....	....	....	....	....	....	....	Frt.	§Junkers K 16
.....	....	....	A-M..	A-M..	A-M..	A-M..	A-M.	Yes.	....	....	....	....	....	....	No..	No..	....	No..	....	....	....	....	....	....	....	....	....	....	....	Frt.	§Junkers G 23
960	....	....	A-M..	A-M..	A-M..	A-M..	A-M.	Yes.	....	....	13300	19.3	13 9	No..	No..	....	....	No..	....	....	....	....	....	....	....	....	....	....	....	Frt.	§Junkers G-24L
753	....	....	Wood	Box..	Fab..	Wood.	Fab.	No..	....	....	3090	4640	23 2	6.2	No..	....	....	....	....	0	RE.	....	....	....	No..	....	....	Rig..	No.	Frt.	L.F.G. V 130
753	....	....	Wood.	Box..	Fab..	Wood.	Fab.	No..	....	....	3230	4710	25.4	6.2	No..	....	....	....	....	0	RE.	....	....	....	No..	....	....	None..	No.	Frt.	L.F.G. V 13
.....	....	....	A-M..	A-M..	A-M..	A-M.	A-M.	Yes.	....	....	3850	4310	23.3	....	Det.	....	No..	No.	....	....	....	....	....	....	....	Yes.	....	None..	No.	Frt.	L.F.G. V 101
560	....	....	A-M..	A-M..	A-M..	A&S.	Al....	Yes.	....	....	3160	4870	21.2	8.7	Det.	No.	....	No.	....	0	....	....	....	....	....	....	....	None..	No.	Frt.	L.F.G. V 59
948	....	....	Al....	....	Al....	Al....	Al....	Yes.	....	....	7100	11100	16.1	11.7	Det.	....	No..	No..	Yes.	No..	No..	....	....	....	No..	Yes.	Yes	d-a..	No.	Frt.	Rohrback Roland
630	63½	24¾	Wood.	LaWd.	Wood.	St.T.	Fab..	Yes.	2½	39½	3970	7720	16.8	12.3	Det.	0	No..	No..	1½	0	RE.	Yes.	Yes.	CA.	Yes.	Yes.	Yes.	a-l..	No..	Frt.	Fokker F VII
1540	190	103	Wood.	Wood.	Fab..	Wood.	LaWd.	Yes.	3½	79	7720	11030	11.0	7.2	No..	0	0	16	3½L	....	....	No..	No..	CA..	No..	Yes.	Yes	a-l..	No..	Frt.	Caproni Civili
1076	....	....	....	....	....	....	....	....	....	....	7200	11000	13.8	10.3	No..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	§Macchi M 24 B

LaWd—Laminated wood.
m—Maximum (tapered).
Ma—Mail.
Met—Metal.
M&W-Metal & wood.
OpC—Open cockpit.
Opt—Optional.
Pa—Passenger.
Pho—Photographic.
PS—Propeller Swing.
R—Rudder.
Rad—Radial.
Ret—Retractable.
Rig—Rigid.
S—Horizontal Stabilizers.
Seap—Seaplane.
St.T—Steel tube.
Ta.Bi—Tandem biplane.
TP.Bi—Tractor and pusher biplane.
TP.Mo—Tractor and pusher monoplane.
Tr.Bi—Tractor Biplane.
Tr.Mo—Tractor monoplane.
Tr.Se—Tractor sesquiplane.
Ver—Vertical.
W (cooling)—Water.
W (Cyls.)—Three banks
W&F—Wood fabric covering.
W&S—Wood and Steel.

Military, Training and Sport Airplanes

PLANE MAKE AND MODEL	Class	Type	Designed For	Total Seat. Capacity	POWER PLANT: Number Used and Make	Total H.P.	Cooling and Type	Propeller R.P.M.	PERFORMANCE: Maxim. Speed (M.P.Hr. at Sea-level)	Landing Speed (M.P.Hr.)	Climb (Mins.) to Service Ceilins (Ft.)	OVERALL: Length (Ft. In.)	Height (Ft. Ins.)	WING DIMENSIONS: Span Upper (Ft. Ins.)	Span Lower (Ft. Ins.)	Chord Upper (Ft. Ins.)	Chord Lower (Ft. Ins.)	Area (Sq. Ft.)	Stagger (Ins.)	MATERIALS: Wings Ribs	Wings Spars	Wings Covering	Fuselage Structure	Fuselage Covering	WEIGHTS: Loaded (Lbs.)	Disposable Load (Lbs.)
AMERICAN																										
Bird	Tr.Bi.	Land.	Sport	2	1–Curtiss OX-5	90	W-Vee	1450	110										Yes	Wood	Box	Fab	St. T.	Fab		
Boeing FB-5	Tr.Bi.	Convt.	Fi.Sc.	1	1–Packard 2A-1500	510	W-Vee	2100	180	65	33–22000	23–2¾	9–4¾	32–0	22–5¾	Taper	Taper	241.2	39¼	LaWd.	Box	Fab	St.T	Fab	3260	791
Boeing PW9C	Tr.Bi.	Land.	Fi.Sc.	1	1–Curtiss D 12 D	420	W-Vee	2250		63	36–21000	23–6⅞	9–2¾	32–0	22–5¾	6–0§	5–0§	241.2	8¼	LaWd.	Box	Fab	St.T	Fab	3039	866
Boeing Des 66	Tr.Bi.	Land.	Fi.Sc.	1	1–Packard 2A 1500†	510	W-Vee	2100	190	60		22–9	8–5	30–0	24–3	Taper	Taper	242.6	24⅜	LaWd.	Box	Fab	St.T	Fab	2913	780
Boeing Des 69	Tr.Bi.	Land.	FiSc.	1	1–Pr&Whit Wasp	400	A-Rad	1900	165	57		23–0	8–9½	30–0	24–3	Taper	Taper	242.6	24⅛	LaWd.	Box	Fab	St.T	Fab	2625	771
Boeing Des 64	Tr.Bi.	Convt.	El.Tr	2	1–Wright J 4 A	200	A-Rad	1800	100	48	42–13000	30–9¾	11–9	38–5	38–6	5–0	5–0	360	21	LaWd.	Wood	Fab	St.T	Fab	2935‡	657‡
Chi. Av. Co. Medusa MB8	Tr.Mo.	Land.	El.Tr	3	1–Curtiss OX 5	90	W-Vee	1400	115	35	–8000	18	6	35	None	5½	None	192	None	Wood	Wood	Fab	St.T	Fab	1800	800
Cole Sport	Tr.Bi.	Land.	Sport	2	1–Curtiss OX 5	90	W-Vee	1450	120	45		21–0	7–7	27–0	27–0	4–0	4–0	216	20	Wood	LaWd.	Fab	St.T	Fab	1650	600
Consolidated PT 1	Tr.Bi.	Land.	El.Tr	2	1–Wright E°	180°	W-Vee	1700	95	50	46–13500	27–8	11–7	34–6	34–6	4–6	4–6	283	24	LaWd.	Wood	Fab	St.T	Fab	2540	710
Consolidated NY 1	Tr.Bi.	Land.	Train	2	1–Wright J 4	200	A-Rad	1800	104	50	50–12800	27–9	11–7	34–6	34–6	4–6	4–6	282	24	LaWd.	Wood	Fab	St.T	Fab	2465	700
Consolidated NY 1	Tr.Bi.	Seap.	El.Tr	2	1–Wright J 4	200	A-Rad	1800	100	52	37–8400	31–4	11–9	34–6	34–6	4–6	4–6	282	24	LaWd.	Wood	Fab	St.T	Fab	2693	700
Curtiss Hawk P 1 B	Tr. Bi.	Land.	Fi.Sc.	1	1–Curtiss D 12	440	W-Vee	2250	167	59	–21000	22–6	8–11	31–6	26–0	6–1§	5–1½§	250	38½	Wood	Wood	Fab	St.T	Fab	2944	782
Curtiss Hawk F6C3	Tr.Bi.	Seap.	Fi.Sc.	1	1–Curtiss D 12	440	W-Vee	2250	156	63	–17500	25–5	10–9	31–6	26–0	6–1§	5–1½§	250	38½	Wood	Wood	Fab	St.T	Fab	3336	812
Curtiss Hawk F6C4	Tr.Bi.	Land.	Fi.Sc.	1	1–Pr&Whit Wasp	400	A-Rad		162	55	–21900	22–6	8–11	31–6	26–0	6–1§	5–1½§	250	38½	Wood	Wood	Fab	St.T	Fab	2555	731
Curtiss Hawk AT 4	Tr.Bi.	Land.	Ad.Tr.	1	1–Hispano S	200	W-Vee		133	55	–15150	22–6	8–11	31–6	26–0	6–1§	5–1½§	250	38½	Wood	Wood	Fab	St.T	Fab	2484	637
Curtiss TS 1	Tr.Bi.	Seap.	Fi.Sc.	1	1–Wright J 1	200	A-Rad	1800	123	50	–14450	24–10	9–7	25–0	25–0	4–9	4–9	228	No						2123	680
Curtiss Falcon 01	Tr.Bi.	Land.	Recon.	2	1–Curtiss D 12	440	W-Vee	2250	150	59	–18700	27–4	10–2	38–0	35–0	5–10	4–6	353	43½	Wood	Wood	Fab	St.T	Fab	4150	1595
Curtiss R3C4	Tr.Bi.	Seap.	Race	1	1–Curtiss V 1550	700	W-Vee	2500	256	94		22–5	10–5½	22–0	20–0	4–8	3–4	144	11¼	Wood	Wood	LaWd.	Wood	LaWd.	3246	862
Douglas DT2	Tr.Bi.	Seap.	To.Ca.	2	1–Liberty 12	400	W-Vee	1700	100	51	–7400	37–7½	15–5⅝	50–0	50–0	7–6	7–6	707	0						7291	2765
Heath Tomboy	Tr.Mo.	Land.	Sport	1	1–Bristol Cherub	32	A-Hor.	2900	109	34	–15000	16–6	5–5	26–0	None	4–9§	None	78	None	Wood	Wood	Fab	Wood	Fab	439	165
Huff Daland XHB-1	Tr.Bi.	Land.	NFB.	4	1–Packard 2A-2500	800	W-Vee	1000	100	50	–10200	59–5	19–3	85–0	85–0	10–3	10–3	1650	No	A-M	A-M	Fab	St.T	Fab	16628	8684
Huff Daland LB-1	Tr.Bi.	Land.	Da.Bo.	4	1–Packard 2A-2500	800	W-Vee	1000	124	48	46–15500	46–2	15–4	66–6	66–6	10–6§	10–6§	1150	No	Wood	Wood	Fab	St.T	Fab	10014	4632
Huff Daland LB-5	Tr.Bi.	Land.	Da.Bo.	4	2–Liberty 12-A	840	W-Vee	1700	110	56	–11000	45–0	15–4	67–0	67–0	10–6§	10–6§	1150	No	Wood	Wood	Fab	St.T	Fab	11804	5164
Ireland Meteor	Tr.Bi.	Land.	El.Tr	2	1–Curtiss OX5°	90	W-Vee	1625	100	40	45–11100	24–0	9–1	32–0	32–0	5–0	5–0	295	None	LaWd.	Wood	Fab	St.T	Fab	1793	590
Irwin M-T-1	Tr.Mo.	Land.	Sport	1	1–Meteormotor 72	25	A-Rad	1750	80	32	–11000	18–0	5–0	28–0	None		None	150	No	Wood	Wood	Fab	Wood	LaWd.	600	300
Irwin M-T-2	Tr.Bi.	Land.	Sport	1	1–Meteormotor 72	25	A-Rad	1750	90	30	–15000	13–9	5–10	19–10	19–0	3–1	3–1	105		Wood	Wood	Fab	Wood	LaWd.	440	200
Irwin C-C-1	Tr.Bi.	Land.	Sport	1	1–Meteormotor 72	25	A-Rad	1750	85	26	–13000	15–0	5–10	20–0	24–0	3–2	3–2	120		Wood	LaWd.	Fab	Wood	LaWd.	550	300
Irwin C-C-2	Tr.Bi.	Land.	Sport	2	2–Meteormotor 72	50	A-Rad	1750	95	30	–15000	16–0	5–10	22–0	26–0	3–6	3–9	350		Wood	LaWd.	Fab	Wood	LaWd.	700	350
Johnson Jacplane	Pu.Bi.	Convt.	Sport	2	2–Bristol Cherub	65	A-Hor.	2900	75	23		21–0	7–10	28–0	28–0	3–9	3–9	195	12	Wood	Wood	Fab	St.T	Fab	1100	395
Kreider Reisner KRA	Tr.Mo.	Land.	Sport	1	1–Wright Morehouse	29	A-Hor.	2500	112	48		15–2	4–6	None	20–0	None	4–0§	60	No	Wood	Wood	W&F	St.T	Fab	560	220
Lizette	Tr.Mo.	Land.	Sport	2	1–Anzani	35	A-Rad		91½	42				27–0	None		None	120	No	Wood	Box	Fab	Al	Al	2016	
Martin T 3 M 1	Tr.Bi.	Seap.	To.Ca.	3	1–Wright T 3 B	575	W-Vee	1900	104	56	–6270	42–9	16–0½	52–4	56–7	8–3	8–3	848	No						9729	3532
Meyers Midget	Tr.Bi.	Land.	Sport	1	1–Bristol Cherub	32	A-Hor.	2900	100	40		13–2	5–5	16–0	12–0	3–2½§	2–3§	70	14	Wood	Wood	Fab	LaWd.	Fab	515	200
Pacer Rocket	Tr.Mo.	Land.	El.Tr	2	1–Curtiss OX 5	90	W-Vee	1400	111	40	–15000	20–4	7–7	30–0	None	4–2	None	126	None	LaWd.	Wood	Fab	St.T	Fab	1220	500
Pacer Mosquito	Tr.Bi.	Land.	Sport	1	1–Anzani 6-C	45	A-Rad	1350	90	32		15–2	6–6	22–3	20–0	2–11½	2–11½	120	10½	LaWd.	Wood	Fab	Wood	LaWd.	600	237
Pitcairn Sesqui	Tr.Se.	Land.	Race	3	1–Curtiss C 6	178	W-Ver	2050	145	60	42–20000	22–6	8–2	32–0	24–8½	4–6	4–6	220	20	Wood	Wood	Fab	St.T	Fab	2218	730
Pitcairn Sesqui	Tr.Se.	Land.	Sport	3	1–Curtiss OX 5	120	W-Vee	2000	120	58	42–15000	22–10	8–2	32–0	24–8½	4–6	4–6	220	20	Wood	Wood	Fab	St.T	Fab	2092	722
U.S. Navy PN 7	Tr.Bi.	Fl.Bt.	Recon.	5	2–Wright T 3	1050	W-Vee	1800	105	54	–9200	49–0¾	15–4⅛	72–10	67–2	9–0	9–0	1220	No						13706	4566
U.S. Navy PN 10	Tr.Bi.	Fl.Bt.	Recon.	5	2–Packard 1500	1000	W-Vee	2100	114	64	–4500	49–2	16–7	72–10	67–2	9–0	9–0	1217	No						18069	8934
U.S. Navy TG 5	Tr.Bi.	Seap.	Train	2	1–Wright E 4	200	W-Vee	1850	99	47	–11550	30–0	11–8¾	36–0	36–0	5–6	5–6	370	12						2878	680
Vought UO 1	Tr.Bi.	Convt.	Obs	2	1–Wright J	220	A-Rad	1900	125	55	–14500	24–0	9–0	34–0	34–0	4–7	4–7	290	12	Wood	Wood	Fab	Wood	Fab	2750	1200
Wright Apache	Tr.Bi.	Convt.	Fi.Sc.	1	1–Pr&Whit Wasp	400	A-Rad	1900		50				27–4	27–4					Wood	LaWd.	Fab	St.T	Fab		
BRITISH																										
A. D. C. Avro	Tr.Bi.	Land.	El.Tr	2°	1–A. B. C. Airdisco	130	A-Vee	950	91		36–11200	29–0	10–6	36–0	36–0	4–9¾	4–9¾	330	24	Wood	Wood	Fab	Wood	Fab	2150	690
A. D. C. Martinsyde	Tr.Bi.	Land.	Fi.Sc.	1	1–Armstrong S. Jaguar	420	A-Rad	1780	160	52	–27000	25–2	9–6	32–9	31–2	6–0½	5–6¼	320	24	Wood	Wood	Fab	St&Wd.	W&F	2680	815
A. D. C. Martinsyde	Tr.Bi.	Land.	Fi.Sc.	1	1–A. D. C. Nimbus	330	W-Ver	1600	150	50	–23500	26–10	9–6	32–9	31–2	6–O½	5–6¼	320	24	Wood	Wood	Fab	St&Wd.	W&F	2665	651
A. D. C. DH-9	Tr.Bi.	Land.	Da.Bo.	2°	1–A. D. C. Nimbus	330	W-Ver	1600	134	57	–19500	30–10	11–8	42–6	42–6	5–6	5–6	434	12	Wood	Wood	Fab	Wood	W&F	3654	1424
A. N. E. C. Missel Thrush	Tr.Bi.	Land.	Sport	2	1–Blackburn. Thrush	30	A-Rad		80			21–6	8–0	28–0	26–0	4–6	3–9	210	Yes	LaWd.	Box	Fab	Wood	LaWd.	1050	570
Armstrong W AW-14	Tr.Bi.	Land.	Fi.Sc.	1	1–Armstrong S. Jaguar	385	A-Rad	1700	160	55	35–23000	21–4	9–8	29–6	24–8	5–0	4–9	243	11½	Steel	Steel	Fab	St.T	Fab	2500	830
Avro Gosport	Tr.Bi.	Land.	Train	2	1–Mono	100	A-Rot.	1250	88	35	45–13000	28–11	10–4	36–0	36–0	4–9¾	4–9¾	320		Wood	Wood	Fab	Wood	Fab	1676	569
Avro 504-N	Tr.Bi.	Land.	Train	2	1–Armstrong S. Lynx	180	A-Rad	1620	95	40	45–16000	28–0	10–9	36–0	36–0	4–9¾	4–9¾	320		Wood	Wood	Fab	Wood	Fab	2187	610
Avro 504-0	Tr.Bi.	Seap.	Train	2	1–Armstrong S. Lynx	180	A-Rad	1620	92	42	45–12500	32–1	11–10	36–0	36–0	4–9¾	4–9¾	320		Wood	Wood	Fab	Wood	Fab	2583	610
Avro Bison	Tr.Bi.	Land.	Deck	4	1–Napier Lion	480	W-W	1320	108	46	45–12000	36–0	15–0	46–0	46–0	8–0	8–0	620		M&W	Wood	Fab	St.T	Fab	6132	2016
Avro Aldershot	Tr.Bi.	Land.	Da.Bo	3	1–Rolls R. Condor	690	W-Vee	1055	110	50	45–11500	45–9	16–0	68–0	68–0	8–6	8–6	1064		M&W	Wood	Fab	A-M	Fab	10950	4640
Avro Avian	Tr.Bi.	Land.	Sport	2	1–Armstrong S. Genet°	72°	A-Rad	1850	105	40	45–15400	23–9	8–6	26–4	26–4	4–9	4–9	234		Wood	Wood	Fab	Wood	Wood	1250	538

Bristol	**F2 B**	Tr. Bi.	Land.	Recon.	2	1-Rolls R.	Falcon°	267	W-Vee	1180	106	53	40-14000	25-9	10-1	39-3	39-3	5-6	5-6	405	18½	Wood	Wood	Fab.	Wood	Fab.	3500	1300
Bristol	**F2 B**	Tr.Bi.	Land.	Recon.	2	1-Bristol	Jupiter	450	A-Rad	1700	129	52	40-20000	25-0	10-1	39-3	39-3	5-6	5-6	405	18½	Wood	Wood	Fab.	Wood	Fab.	3250	1050
Bristol	**School**	Tr.Bi.	Land.	Train	2	1-Bristol	Lucifer	130	A-Rad	1700	92	49	45-12000	24-10	9-3½	31-1	31-1	5-3	5-3	285	27½	Wood	Wood	Fab.	Wood	W&F	1840	500
Bristol	**Brownie**	Tr.Mo	Land.	Sport	2	1-Bristol	Cherub	33	A-Hor	2900	71	35	45-7500	26-3	6-6	None	37-4	None	6-4a	204	No	Wood	Wood	Fab.	St.T	Fab.	1010	410
Bristol	**Boarhound**	Tr.Bi.	Land.	Recon.	2	1-Bristol	Jupiter	450	A-Rad	1700	132	55	40-21800	30-7	11-0	44-9	43-9	7-0	4-6	464	30	Steel	Steel	Fab.	Steel	Fab.	3994	1464
Cranwell	**CLA 4**	Tr. Bi.	Land.	Train	2	1-Pobjoy		65	A-Rad					22-3½	6-7½	22-0	27-4	3-4	4-0	164	No	Wood	Wood	Fab.	Wood	W&F	860	380
Gloster	**Grebe II**	Tr.Bi.	Land.	Fi.Sc.	1	1-Armstrong S.	Jaguar	396	A-Rad	1700	152	53	30-23000	20-3	9-6	29-0	25-0	5-3	5-0	254	20	Wood	Wood	Fab.	Wood	Fab.	2614	
Gloster	**Grouse II**	Tr.Bi.	Land.	Ad.Tr.	2	1-Armstrong S.	Lynx	180	A-Rad	1620	120	52	-18000	18-9	9-6	27-10	21-4	5-3	4-0	208	21	Wood	Wood	Fab.	Wood	Fab.	2120	
Gloster	**Gamecock**	Tr.Bi.	Land.	Fi.Sc.	1	1-Bristol	Jupiter	420	A-Rad	1700	152	52	40-26000	19-5	9-7	29-9	26-0	5-3	5-2½	264	20	Wood	Wood	Fab.	Wood	Fab.	2742	
Gloster	**Gorcock**	Tr. Bi.	Land.	Fi.Sc.	1	1-Napier	Lion	525	W-W	2350	160	58	-24500	21-5	9-11	28-6	25-0	5-3	4-9	250	23½	Wood	Wood	Fab.	St.T	Fab.	3049	
Halton	**H.A.C. 1**	Tr.Bi.	Land.	Sport	2	1-Bristol	Cherub	32	A-Hor	2900	75	35				28-6	20-0	4-9	3-3	195		Wood	Box			Wood	LaWd	880	
Handley-Paige	**Hyderabad**	Tr.Bi.	Land.	NFB.	4	2-Napier	Lion	940	W-W	1320	111	55	-14050	59-5		75-0	75-0	10-0½	10-0½	1500	No						13630	5650
Handley-Paige		Tr.Mo	Land.	Fi.Sc.	1	1-Armstrong	Jaguar	385	A-Rad	2900	178	55	27000			None	Slot	None	Slot		No						2530	810
Hawker	**Cygnet**	Tr.Bi.	Land.	Sport	2	1-Bristol	Cherub	32	A-Hor	2900	85	35		20-3	6-5	28-0	23-0	4-3	2-6	165	14	W&F	Wood	Fab.	Wood	Fab.	900	480
Hawker	**Woodcock**	Tr.Bi.	Land.	Fi.Sc.	1	1-Bristol	Jupiter	425	A-Rad	1650	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††
Hawker	**Hedgehog**	Tr.Bi.	Amph.	Deck.	3	1-Bristol	Jupiter	460	A-Rad	1700	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††
Hawker	**Heron**	Tr.Bi.	Land.	Fi.Sc.	1	1-Bristol	Jupiter	460	A-Rad	1700	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††
Hawker	**Horsley**	Tr.Bi.	Land.	Da.Bo.	2	1-Rolls R.	Condor	650	W-Vee	907	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††
Hawker	**Hornbill**	Tr.Bi.	Land.	Fi.Sc.	1	1-Rolls R.	Condor	650	W-Vee	1900	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††	††
R. A. E.	**Sirocco**	Tr.Mo.	Land.	Sport	2	1-Bristol	Cherub	32	A-Hor	2900	75	55		21-0	5-0	None	33-0	None		150	No	Wood	Box	Fab.	Wood	LaWd	900	305
Short Mussel	**S 7**	Tr.Mo.	Seap.	Train	2	1-A. D. C.	Cirrus	65	A-Ver	1800	82	44		25-0		None	36-0	None	6-0	200	No	Al	Al	Al	A-M	A-M	1400	493
Supermarine	**Southampton**	Tr.Bi.	Fl.Bt.	Recon.	5	2-Napier	Lion	900	W-W	1320	108	56	-14000	49-8	18-6	75-0	75-0			1426	No	Wood	Box	W&F	Wood	Wood	14300	5290
Vickers	**Wibault**	Tr.Mo	Land.	Fi.Sc.	1	1-Bristol	Jupiter	495	A-Rad	1870	139b	55	37-23400	23-8	9-6	36-1	None	6-11	None	237	No	A-M	A-M	A-M	A-M	A-M	3060	1087
Vickers	**Vixen V**	Tr.Bi.	Land.	Recon.	2	1-Napier	Lion	502	W-W	1450	118b	51	46-19000	32-9	13-0	45-1	39-7	8-3	7-0	590	29	Wood	Wood	Fab.	St.T	Fab.	5550	2212
Vikers	**Vixen V**	Tr.Bi.	Seap.	Recon.	2	1-Napier	Lion	502	W-W	1450	110b	51	51-16500	36-9	14-1	45-1	39-7	8-3	7-0	590	29	Wood	Wood	Fab.	St.T	Fab	5550	1662
Vickers	**Virginia VI**	Tr.Bi.	Land.	NFB.	4	2-Napier	Lion	1000	W-W	1450	108	46	41-10700	51-9	18-4	86-6	86-6	13-0	13-0	2166	No	Wood	Wood	Fab.	St.T	Fab.	16750	6890
Vickers	**Vendace**	Tr.Bi.	Land.	Ad.Tr.	2	1-Rolls R.	Falcon	290	W-Vee	1320	118	43	45-16300	32-3	12-7	44-7	44-7	6-6	6-6	534	No	Wood	Wood	Fab.	St.T	Fab.	3577	887
Vickers	**Vendace**	Tr.Bi.	Seap.	Ad.Tr.	2	1-Rolls R.	Falcon	290	W-Vee	1320	112	46	43-14200	36-0	14-4	44-7	44-7	6-6	6-6	534	No	Wood	Wood	Fab.	St.T	Fab.	4034	887
Westland	**Yeovil**	Tr.Bi.	Land.	Da.Bo.	2	1-Rolls R.	Condor	693	W-Vee	907	123c	49	42-17700	37-2	14-0	59-6	59-6	8-6	6-0	813	22	St&Wd	St&Wd	Fab.	Wood	Fab.	8121	2683
Westland	**Widgeon**	Tr.Mo.	Land.	Sport	2	1-Armstrong S.	Genet	70	A-Rad	2000	100	45	45-14000	20-5	7-6	30-8	None	6-0§	None	145	No	Wood	Wood	Fab.	Wood	Fab.	1150	455

FRENCH

Avimeta	**AVM 88**	Tr.Mo.	Land.	Recon.	2	1-Hispano	12 H b	595	W-Vee	2000	140	62	40-21500	31 5-	11.0-	55.8-	None	8.87-	None	431	None	Al	Al	Al	Al	Al	53300	1875
Avimeta	**AVM 120**	Tr.Mo.	Land.	Da.Bo.	4	2-Jupiter	9 AL	840	A-Rad	1700	133	56	40-21000	44.7-	10.8-	71.0-	None	13.13-	None	753	No	Al	Al	Al	Al	Al	8160	1985
Albert & Duhamel	**TEC 1**	Tr.Mo.	Convt.	Sp&Tr.	1	1-		40	A-	2000	93	42	-9800	19.4-	6.5-	28.9-	None		None	107½	No			Wood	Wood	Wood	854	291
Albert & Duhamel	**TEC 2**	Tr.Mo.	Convt.	Sp&Tr.	2°	1-Various		100°	A or W	1700	102°	42	Varies	26.3-	9.0-	36.8-	None		None	183	No			Wood	Wood	Wood	1544	662°
Bechereau	**2 C 2**	Tr.Mo.	Land.	Fi.Sc.	2	1-Salmson	CM 18	500	-Rad	1650	130		-23452	32.8-	9.8-	47.9-	None	7.3	None	377	No						5203	1768
Besson	**MB 35**	Tr.Mo.	Seap.	Subm.	2	1-Salmson	Ac 9	120	A-Rad	1800	101	52	-13776	22.9-	8.4-	32.3-	None		None	177	No	Wood	Wood		Wood		1686	320
Bernard	**15 C 1**	Tr.Se.	Land.	Fi.Sc.	1	1-Hispano	12 Ha	500	W-Vee	1800	162		-29520	24.6-	10.2-	37.4-	17.3-			264		Wood	Wood		Wood		3924	882
Bleriot Spad	**61**	Tr.Bi.	Land.	Fi.Sc.	1	1-Lorraine	12 Eb	450	W-W	1850	176		-40820	23.6-	10.5-	38.5-	35.0-			398		M&W	M&W	Fab.	Wood	Wood	3354	826
Breguet	**19 A2**	Tr.Bi.	Land.	Obs.	2	1-Renault	12 Kd	480	W-Vee	1600	129		-22800	31.2-	10.9-	48.6-	36.0-	8.6-	5.6	538	Yes	Met	Met		Met	M&F	4428	1782
C.A.M.S.	**37**	Pu.Bi.	Amph.	Recon.	3	1-Lorraine		450	W-W	1850	113	56	40-11500	37.5-	13.3-	47.6-	47.6-	7.88-	6.88-	624	2	Wood	Wood	Fab.	Wood	LaWd.	6400	1870
C.A.M.S.	**46**	Pu.Bi.	Fl.Bt.	Train	2	2-Hispano Suiza		150	W-Vee	1600	97	40	40-9800	29.8-	9.8-	39.4-	39.4-	5.91-	5.25-	398	2	Wood	Wood	Fab.	Wood	LaWd.	2760	595
Caudron	**59**	Tr.Bi.	Land.	Train	2	1-Hispano. S	8 Ab	180	W-Vee	1800				25.4-	9.5-	33.6-	30.3-	4.8-	4.8-	280		Wood	Wood	Fab.	Wood		2193	661
Caudron	**104**	Tr.Bi.	Land.	Obs.	2	1-Gnome Rh.	Jupiter	420	A-Rad	1750	115		-20910	31.2-	10.7-	47.7-		7.2-	4.8	473		Wood	Wood	Fab.	Wood	Fab.	4331	1296
Descamps	**7 A2**	Tr.Se.	Land.	Obs.	2	1-Lorraine	12 Eb	450	W-W	1800	125		-20992	30.7-	11.0-	47.6-	24.6-	7.9-	4.6-	452		Al	Al	Fab.	Al.T	Fab.	4510	1781
Dyle et Bacalam	**DB 10**	Tr.Mo.	Land.	NFB.	4	2-Gnome Rh.	Jupiter	840	A-Rad	1700	121	56	23-13100	44.7-	15.4-	82.1-	None	11.2-	None	1000	No	Al	Steel	Fab.	Al.T	Fab.	12350	5410
France Av.	**Denhaut**	Tr.Bi.	Amph.	Da.Bo.	2	2-Gnome Rh.	Jupiter	800	A-Rad	1600	109	56		52.5-	16.4-	78.8-				1250		Wood	Wood	Fab.	Wood		11530	4430
France Av.	**Oricon**	Tr.Bi.	Land.	Fi.Sc.	2	1-Salmson		40	A-Rad	1200				22.2-	7.7-	44.4-				226		Wood	Wood	Fab.	Wood			
Farman Super	**Goliath**	TP.Bi.	Land.	NFB.	6	4-Farman	12 WE	2000	W-W	1025	115	50	60-19700	64.7-	21.3-	114.8-	114.8-	13.1-	13.1-	2885	No	Wood	Wood	Fab.	Wood	W&F	26000	10150
Farman Goliath	**F 63**	Tr.Bi.	Land.	NFB.	4	2-Jupiter	9Aa	760	A-Rad	1550	106	43	60-14800	48.6-	15.4-	88.4-	88.4-	9.9-	9.9-	1647	No	Wood	Wood	Fab.	Wood	W&F	11900	5720
Farman Goliath	**F 65**	Tr.Bi.	Seap.	To.Ca.	4	2-Jupiter	9Aa	760	A-Rad	1550	96	50	60-11500	51.6-	17.4-	88.4-	88.4-	9.9-	9.9-	1647	No	Wood	Wood	Fab.	Wood	W&F	13000	4970
Farman	**F 130**	Tr.Bi.	Land.	NFB.	3	1-Farman	18 WD	700	W-W	900	112	43	60-15400	48.9-	15.4-	83.8-	83.8-	9.9-	9.9-	1625	No	Wood	Wood	Fab.	Wood	W&F	12450	5500
Farman Jabiru	**F 123**	Tr.Mo.	Land.	Da.Bo.	3	2-Hispano Suiza		900	W-Vee	1800	131	53	60-14100	45.0-	16.1-	62.4-	None	16.1-	None	872	No	Wood	St.T	Fab.	Wood	W&F	11680	4750
Farman	**F 150**	Tr.Bi.	Seap.	To.Ca.	3	2-Jupiter	9Aa	760	A-Rad	1550	104	53	60-9800	45.6-	18.1-	66.6-	61.3-	13.1-	9.85	1420	14	Wood	Wood	Fab.	Wood	W&F	11800	4180
Farman	**F 80**	Tr.Bi.	Land.	El.Tr.	2	1-Renault		190	W-Vee	1500	96	37	60-16400	26.9-	10.8-	42.7-	42.7-	6.07-	6.07-	495	No	Wood	Wood	Fab.	Wood	W&F	2430	728
Farman	**David**	Tr.Bi.	Land.	Sport	2	1-Anzani		60	A-Rad	1500	87	31	60-16100	20.2-	8.1-	23.6-	21 7-	4.92-	4.92-	215	22	Wood	Wood	Fab.	Wood	Wood	882	418
Farman	**Aviette**	Tr.Mo	Land.	Sport	1	1-Anzani		25	A-Rad	1700	87	25	60-9800	17.7-	6.8-	27.9-	None	4.1-	None	108	No	Wood	Wood	Fab.	Wood	Wood	485	236
Hanriot	**35**	Tr.Bi.	Land.	Train	2	1-Hispano	8 Ab	180	W-Vee	1800	128	43	-16400	24.5-	9-	37.4-	37.4-	6.9-	6.9-	1389							2101	712
Hanriot	**41 H**	Tr.Bi.	Seap.	Train	2	1-Salmson	Ac 9	120	A-Rad	1800	75	32	-10500	27.7-	10.8-	33.6-	33.6-	5.6-	5.6-	375		Wood	Wood		Wood		2303	573
Latecoere	**6**	Tr.Bi.	Land.	Fi.Sc.	3	4-		1680	A-Rad																			
Latecoere	**19**	Tr.Mo.	Land.	NFB.	2	2-		550	W-Vee		124	63	22-13100	52.4-	15.4-	90.9-	67.7-	10.5-	6.90-	1292		A-M	Al	Al	Al	Al	14550	3400
Levasseur	**4 R 3 b**	Tr.Bi.	Deck.	Obs.	3	1-Lorraine	12 Eb	450	W-W	1800	112	59	7¼-13100	39.4-	12.5-	59.1-	13.1-	9.85-	5.42-	581		Wood	Al	Fab.	Al.T	Al	7280	2890
Levy		Tr.Bi.	Amph.	Fi.Sc.	1	1-Hispano Suiza		300	W-Vee	1800	115		-18000	31.8-	12.8-	47.9-	47.9-			646		Wood	Wood	Wood	Wood	Wood	5291	1878
Levy		Tr.Bi.	Seap.	Obs.	2	1-Jupiter		420	A-Rad	1700	135	49	60-19000	33.5-	12.3-	42.7-	30.9-	7.88-	4.60-	442	24	Wood	Wood	Fab.	Wood	Wood	2880	1020
Liore et Olivier	**21**	Tr.Bi.	Land.	NFB.	3	2-Gnome Rh.	Jupiter	840	A-Rad	1750	119			50.5-	14.1-	74.7-	74.7-			1146		Al	Al	Al	Al	Al	12375	5420
Loire-Gourd.-Lesseure	**32 C 1**	Tr.Mo.	Land.	Pursuit.	1	1-Gnome Rh.	Jupiter	480	A-Rad	2000	155	56	31-26200	24.8-	9.7	40.0-	None	6.8-	None	269	No					Al.T	Fab.	3033	910
Morane-Saulnier	**35**	Tr.Mo.	Land.	El.Tr.	2	1-Gnome Rhone	C	80	A-Rot	1200	81		53-13100	22.2-	11.8-	34.6-	None	5.9-	None	194	No	Wood	Wood	Fab.	Wood	Fab	1540	550
Morane-Saulnier	**36**	Tr.Mo.	Land.	Ad.Tr.	1	1-Gnome Rhone	C	80	A-Rot	1200	85		60-14400	22.2-	11.8-	28.6-	None		None	143	No	Wood	Wood	Fab.	Wood	Fab.	12140	348

ABBREVIATIONS:

°—Others Also.
*—1926 Specifications.
†—Inverted.
††—Information refused.
‡—Seaplane.
§—Maximum.
a—Average.
A—Air.
Ad.Tr—Advanced Training.
Al—Aluminum.
Al.T—Aluminum Tubing.
A-M—All-metal Construction.
Amph—Amphibian.
A&St—Aluminum and Steel.
b—At 15000 Ft.
Bomb—Bomber.
Box—Box Beam (Wood).
c—At 6000 Ft.
Convt.—Convertible.
Da.Bo—Day Bomber.
Deck—Deck Flying.
El.Tr—Elementary Training.
Fab—Fabric.
Fi.Sc—Fighting Scout.
Fl. Bt—Flying Boat.
Hor—Horizontal.
LaWd—Laminated Wood.
Milit—Military.
M&F—Metal and Fabric Covering.
M&W—Metal and Wood.
NFB—Night Flying Bomber.
Ni.Fi—Night Fighter.
Obs—Observation.
Pr&Whit—Pratt & Whitney.
Pu.Bi—Pusher Biplane.
Race—Racing.
Rad—Radial.
Recon—Reconnaisance.
Rot—Rotary.
Seap—Seaplane.
Sp&Tr—Sport and Training.
St.T—Steel Tube.
St&Wd—Steel and Wood.
Subm—Submarine.
Taper—Tapered Wing.
To.Ca—Torpedo Carrier.
TP.Bi—Tractor and Pusher Biplane.
Train—Training.
Tr.Bi—Tractor Biplane.
Tr.Mo—Tractor Monoplane.
Tr.Se—Tractor Sesquiplane.
Ver—Vertical.
W—(Cooling) Water.
W—(Cylinders)-Three Banks.
W&F—Wood and Fabric Covering.

Military, Training and Sport Airplanes—Continued

PLANE MAKE AND MODEL	Class	Type	Designed For	Total Seating Capacity	POWER PLANT: Number Used and Make	Total H.P.	Cooling and Type	Propeller R.P.M.	PERFORMANCE: Maxim. Speed (M.P.Hr. at Sea-level)	Landing Speed (M.P.Hr.)	Climb (Mins.) to Service Ceilins (Ft.)	OVERALL: Length (Ft. In.)	Height (Ft. Ins.)	WING DIMENSIONS: Span Upper (Ft. Ins.)	Span Lower (Ft. Ins.)	Chord Upper (Ft. Ins.)	Chord Lower (Ft. Ins.)	Area (Sq. Ft.)	Stagger (Ins.)	MATERIALS: Wings Ribs	Wings Spars	Wings Covering	Fuselage Structure	Fuselage Covering	WEIGHTS: Loaded (Lbs.)	Disposable Load (Lbs.)
FRENCH—Continued																										
Morane-Saulnier 129	Tr.Mo.	Land.	Train.	2	1-Hispano S. 8 Ab	180	W-Vee.	1800	124		31-13100	23.1-	8.9-	35.1-	None	6.6-	None	212	No	Wood	Met.	Fab.	M&W.	Fab.	2300	672
Morane-Saulnier 130	Tr.Mo.	Land.	Train.	2	1-Salmson Ab. 9	230	A-Rad.	1700				22.8-	8.9-	35.1-	None	6.6-	None	212	No	Wood	Met.	Fab.	M&W.	Fab.	2610	785
Morane-Saulnier 134	Tr.Mo.	Land.	Train.	2	1-Clerget°	130°	A-Rot.	1250			28-9820	22.4-	12.0-	34.8-	None		None	194	No	Wood	Wood	Fab.	M&W.	Fab.	1860	528
Morane-Saulnier 136	Tr.Mo.	Land.	Train.	2	1-Salmson	120	A-Rad.	1800			28-9820	22.3-	11.7-	34.8-	None	6.6-	None	194	No	Wood	Wood	Fab.	M&W.	Fab.	1790	542
Mureaux 3 C 2	Tr.Mo.	Land.	Fi.Sc.	2	1-Hispano 12 Ha	500	W-Vee.	1800	152	63	-28000	27.7-	10.2-	49.2-	None	7.5-	None	350	No	Al.T.		Fab.	Al.T.	Fab.	4400	1830
Nieuport Delage 42 C 1	Tr.Sc.	Land.	Fi.Sc.	1	1-Hispano 12 Ha	500	W-Vee.	1800	165		-26000	24.6-	9.8-	39.0-	18.0-			336	No	Wood	Al.	Fab.	Wood.	Wood	3810	907
Nieuport Delage 48 C-1	Tr.Mo.	Land.	Fi.Sc.	1	1-Hispano 12 Jb	400	W-Vee.	2000	158		21-	9.2-	32.8-	None		None		209	No						2720	544
Potez 25	Tr.Bi.	Land.	DaBo.	2	1-Hispano 12 Ga	500	W-W.	1800	131		38-19800	29.5-	11.5-	46.6-	34.0-	8.2-	4.6-	502	Yes	Wood	Wood	Fab.	Wood.	W&F	4220	1660
S.E.C.M. Amiot 120 BN3	Tr.Bi.	Land.	Bomb.	3	1-Renault 12 MA	600	W-Vee.	1600	129	45	50-18000	46.0-	16.4-	67.3-	46.0-	9.85-	8.56-	970	20	Al.	A&St.	Fab.	Al.	Fab.	9270	4190
Villiers 5 CAN 2	Tr.Se.	Land.	Ni.Fi.	2	1-Lorraine 12 Eb	450	W-W.	1800	139	57	43-19700	28.7-	10.8-	39.4-	29.5-	8.2-	3.9-	430	Yes	Wood	Wood	Fab.	Wood	LaWd.	4640	1800
Wibault MK 7 C 1	Tr.Mo.	Convt.	Fi.Sc.	1	1-Gnome Rh. Jupiter	420	A-Rad.	1750	138	61	-27900	24.5-	9.5-	36.1-	None	6.90-	None	237	No	A.M.	A-M.	A-M.	A-M.	A-M.	3190	1360
Wibault MK 8 C 2	Tr. Mo.	Convt.	Milit.	2	1-Hispano S. MK 51	500	W-Vee.	2000	149	61	-24600	24.5-	9.5-	41.6-	None	7.93-	None	317	No	A-M.	A-M.	A-M.	A-M.	A-M.	4560	1830
Wibault MK 9 C 1	Tr.Mo.	Convt.	Fi.Sc.	1	1-Hispano S. MK 52	400	W-Vee.	2000	151	61	-23600	24.5-	9.5-	36.1-	None	6.90-	None	237	No	A-M.	A-M.	A-M.	A-M.	A-M.	3270	1240
GERMAN																										
Albatros L 68a	Tr.Bi.	Land.	El.Tr.	2	1-Siemens H. SH 12	100	A-Rad.	1650	87	43	50-8210	20.9-	9.1-	33.2-	29.7-	4.43-	4.43-	264		Wood	Wood	W&F	St.T.	Fab.	2110	660
Albatros L 74	Tr.Bi.	Land.	Ad.Tr.	2	1-B.M.W. IV a	230	W-Ver.	1400	112	47	54-13100	27.3-	11.2-	37.2-	37.2-	5.25-	5.25-	359		Wood	Wood	W&F	St.T.	Fab.	3860	1100
Arado S-1	Tr.Bi.	Land.	Train.	2	1-Siemens H. °Sh 12	100°	A-Rad.	1500	87	34		24.1-	8.7-	37.8-	27.9-	5.26-	3.94-	285							2020	697
Arado SC-1	Tr.Bi.	Land.	Train.	2	1-B.M.W. IV	230	W-Ver.	1400	112	53		31.9-	10.2-	42.2-	30.0-	5.26-	3.94-	316							3320	1110
Daimler-Benz L 20	Tr.Mo.	Land.	Sport.	1	1-Own	20	A-Hor.	1000	75	28	90-10500	23.9-	5.8-	42.7-	None	5.26-	None	215	No	Wood	Wood	LaWd.	Wood.	W&F	990	405
Focke-Wulf S 1 a	Tr.Mo.	Land.	Ad.Tr.	2	1-Siemens Halske	75	A-Rad.	1500	87	34	-9800	26.6-	6.9-	39.4-	None	6.24-	None	237	No	LaWd.	LaWd.	Fab.	LaWd.	Fab.	1630	510
Heinkel HE 5 A & B	Tr.Mo.	Seap.		3	1-Napier Lion°	450°	W-W.		131	53		38.8-	12.5-	None	55.2-	None	10.35	527	No						5525	1900
Heinkel HD 24	Tr.Bi.	Convt.	Train.	2	1-B.M.W. IV	230	W-Ver.	1400	105	46		31.8	13.6-	46.7-	46.7-	6.08-	6.08-	539							4420	1435
Heinkel HD 22	Tr.Bi.	Land.	Train.	2	1-B.M.W. IV	230	W-Ver.	1400	118	51		28.2-	10.3-	39.4-	39.4-			375							3410	355
Heinkel HD 20	Tr.Se.	Land.	Photo.		2-Wright J	400	A-Rad.	1800	119	52		31.0-	11.6-	42.1-	28.9-	6.90-	5.92-	428							4210	1435
*Junkers A-20	Tr.Mo.	Land.	NFB.	2	1-Mercedes	160	W-Vee.		106			37.2-	9.5-	None	50.2-	None		302	No	A-M.	A-M.	A-M.	A-M.	A-M.	3320	1190
*Junkers T-26	Tr.Mo.	Land.	Sport.	2	1-Own I-1	80	W-Ver.		72	37		24.8-	8.9-	None	32.8-	None	4.76-	360	No	A-M.	A-M.	A-M.	A-M.	A-M.		510
*Junkers T-29	Tr.Mo.	Land.	El.Tr.	3	1-Siemens H.	75	A-Rad.	1500	93			26.3-	9.2-	None	42.0-	None		203	No	A-M.	A-M.	A-M.	A-M.	A-M.	1880	700
L.F.G. V 40	Tr.Mo.	Land.	Sport.	2	1-Siemens H.	75	A-Rad.	1500	74	42	-11500	23.5-	7.7-	37.5-	None	Taper	None	194	No	Al.	Al.		A&St.		1855	675
L.F.G. V 52	Tr.Mo.	Land.	Sport.	2	1-Siemens H.	75	A-Rad.	1500	90	37	-9850	23.0-	6.6-	32.8-	None		None	156	No	LaWd.	Box.	Fab.	Wood.	Wood	1215	453
L.F.G. V 58	Tr.Bi.	Land.	El.Tr.	2	1-Siemens H.	75	A-Rad.	1500	81	37		22.0-	8.9-	32.8-				258	Yes	LaWd.	Box.	Fab.	Wood.	Wood	1660	487
L.F.G. V 60	Tr.Bi.	Seap.	El.Tr.	2	1-B.M.W. IV	220	W-Ver.	1400	95	43		34.8-	12.5	49.3	49.3-			560	Yes	LaWd.	Box.	Fab.	Wood.	LaWd.	3980	995
Udet Flamingo	Tr.Bi.	Land.	Train.	2	1-Siemens H. Sh 11	82	A-Rad.	1500	87	47	60-10800	24.6-	9.2-	32.8-	32.8-	4.34-	4.34-	258	14	Wood	Wood	Fab.	Wood.	LaWd	1765	652
DUTCH																										
Fokker C 5 D	Tr.Bi.	Land.	Fi.Sc.	2	1-Hispano S. 5i	645	W-Vee.	2200	160	59	34-21300	31.2-	10.8-	41.1-	28.2-	6.11-§	4.93-§	310	35	Wood	LaWd.	W&F	St.T.	Fab.	4225	1325
Fokker C 5 E	Tr.Bi.	Land.	Da.Bo.	2	1-Gnome Rh. Jupiter	610	A-Rad.	2180	144	56	45-21300	31.0-	11.1-	50.2-	33.7-	7.23-§	4.93-§	423	37	Wood	LaWd.	W&F	St.T.	Fab.	4930	2210
Fokker D XIII	Tr.Bi.	Land.	Fi.Sc.	1	1-Napier Lion	500	W-W.	1450	162	59	23-20700	25.9-	9.5-	36.1-	19.7-	5.9-§	3.3-§	232	41	Wood	LaWd.	Wood	St.T.	Fab.	3550	950
Fokker S IV	Tr.Bi.	Land.	Train.	2	1-LeRhone	120	A-Rot.	1250	99	40	35-11500	27.9-	10.3	35.1-	31.8-	5.26	3.94-	280	26	Wood	LaWd.	Fab.	St.T.	Fab.	2210	730
ITALIAN																										
Caproni 73	TP.Bi.	Land	NFB.	4	2-	800	W-		1800	109	44	50-13100	50.5-	18.4-	59.1-	82.1-	10.7-	12.1-	1540	16	Wood	Wood	Fab.	Wood.	LaWd.	11030	2648
Caproni 73 ter	TP.Bi.	Land.	NFB.	4	2-	1000	W-		1850	112	43	55-16400	50.5-	18.4-	59.1-	82.1-	10.7-	12.1-	1540	16	Wood	Wood	Fab.	Wood.	LaWd.	11250	5070
Caproni 70	Tr.Bi.	Land.	Fi.Sc.	2	1-	380	A-		1575	127	50	30-16400	11.6-	12.4-	49.5-	28.9-	8.21-	8.21-	592	No	Wood	Wood	Fab.	Wood.	LaWd.	4477	1765
Caproni Ambulance	Tr.Bi.	Land.	Amb.	10	3-	600	W-		1450	87	43	40-13100	36.2-	12.6-	74.7-	74.7-	6.96-	6.96-	1033	No	Wood	Wood	Fab.	Wood.	Fab.	7585	2210
Fiat BR 1	Tr.Bi.	Land.	DaBo.	2	1-Fiat A 14				152	59	-19700	34.4-	12.8-	56.8-	47.0-	8.27	8.27-	828		Wood	Wood	Fab.	St&Wd.	Wood	8600	3310
Fiat CR 1	Tr.Bi.	Land.	Pursuit.	1	1-H.S. 42				161	68	-24600	20.3-	11.2-	23.9-	29.4-	4.92-	4.92-	248		Wood	Wood	Fab.	St&Wd.	Wood	2550	695
Fiat CR 20	Tr.Bi.	Land.	Pursuit.	1	1-Fiat A 20	415	W-Vee.	2200	179	56	-27900	22.0-	8.9-	32.2-	22.4-	5.32-	5.32-	278		Al.	Steel.	Fab.	A&St.	Fab.	2910	927
Fiat R 22	Tr.Bi.	Land.	Recon.	2	1-Fiat A 22	550	W-Vee.	2000	156	60	-21700	30.4-	11.5-	46.3-	34.1-	7.06-	7.06-	538		Al.	Steel.	Fab.	A&St.	Fab.	5030	1980
*Macchi M 30	Tr.Bi.	Convt.	Sport.	2	1-Anzani°	45°	A-Rad.		78	41	50-13100	19.4-	7.6-	25.9-	None	4.27-	None	210	No						1140	500
*Macchi M 33	Tr.Mo.	Fl.Bt.	Race.	1	1-Curtiss D-12	400	W-Vee.	2000	202	81		27.4-	11.6-	32.0-	None	5.92-	None	162	No	Wood	Wood	Wood	Wood.	Wood	2830	620

| | | |

Automotive Exports Gain 3.2% in Value in 1926

Decrease recorded in passenger car units shipped from U. S. and Canada, but large increase is made in truck business. Growth in service equipment.

By George E. Quisenberry

Editor, The American Automobile (Overseas Edition)

UNUSUAL and different conditions prevailed in 1926 in the international sales of American and Canadian automotive products, some equipment making increases whereas others were lower, but the total of all exports was slightly higher than in 1925, thus causing the year to set another record. The increase, equivalent to 3.2 per cent, brought the year's business to $456,425,702, which compares with $442,964,972 in 1925.

This gain, small though it may appear to be, marked 1926 as the fifth successive year of increases.

When a careful survey is made of the course of trade in the various branches of the industry, many contradictory factors are uncovered. These must be gaged properly to obtain a correct understanding of the whole position but, briefly, it may be said that shipments to various territories were too large in the first half of last year and that the business necessarily was forced to slacken temporarily while the larger stocks were turned to the hands of consumers in the latter part of the year. Furthermore, important decreases, the percentage of which cannot be estimated, were evident in the sales of a chief producer and there were significant distributor-sales developments in the business of another supplier. The combined results of all of these conditions exerted a material effect upon the entire trade.

Shipments of complete passenger cars from the United States and Canada decreased by nearly 10,000 units, or 3.3 per cent. Almost exactly the same percentage decrease was registered in the overseas assembly of cars and trucks, and automobile engines and motorcycles also were at lower levels than in the preceding year. But a particularly satisfactory increase in truck shipments, of 16.8 per cent, combined with a higher unit value, more than offset the lower car shipments, so that motor vehicle exports from the United States and Canada were actually larger than in any other 12 months.

The combined shipments were 379,576 cars and trucks, these going to all sections of the world.

Increases are shown to have been made in nearly every other category of automotive product. A remarkable gain in tire shipments from the Canadian factories was accompanied by a small increase from the United States, so that the total in this class was much enlarged. Parts shipments also were larger, as were tractors, trailers, storage batteries and garage service equipment. The latter class of shipments, 26.3 per cent larger than in 1925, has achieved real volume and it is apparent that here is a rapidly growing part of the industry, now attaining important proportions.

The adjoining tabulation gives the totals, together with percentages of increase and decrease, changes in unit value and other similar information.

The total of 379,576 cars and trucks announced in the foregoing does not include, of course, all international sales of automobiles, due to the assembly in branch plants—such as those in Europe, South America and elsewhere—of units shipped from the producers as parts

How U. S. and Canadian Exports Were Distributed to Major Markets

	1926			1925		
	Cars	Trucks	Total	Cars	Trucks	Total
Australia	60,575	20,086	60,661	56,995	12,424	69,419
New Zealand	15,588	3,203	18,791	16,182	3,134	19,316
South Africa	17,158	2,708	20,087	17,158	1,106	18,264
India	9,452	5,591	15,043	9,469	3,144	12,613
*Sweden	3,855	367	4,222	3,718	271	3,989
*Argentina	29,091	2,475	31,566	34,988	1,882	36,870
*Brazil	17,783	5,886	23,669	16,043	4,692	20,735
*Great Britain	9,040	5,904	14,944	20,630	6,330	26,960
*Japan	2,550	323	2,873	1,801	67	1,868
*Spain	6,579	2,247	7,398	6,579	1,394	7,973

* Branch plant assembly by Ford not included.

Exports

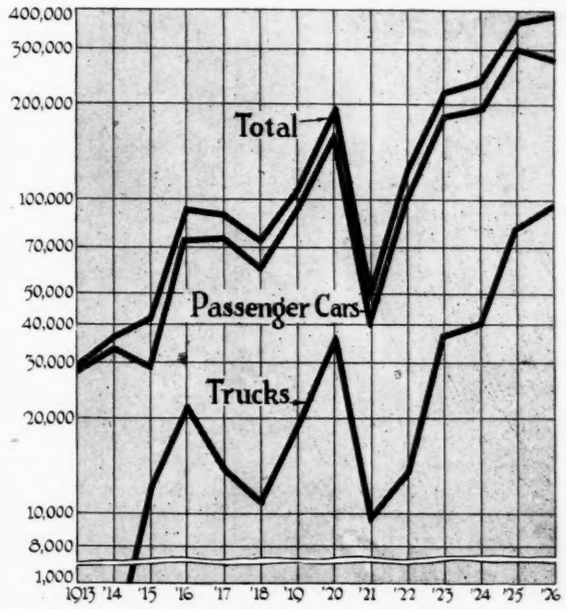
rather than as complete automobiles. Two major producers—Ford and General Motors—had 22 such plants in operation during all or part of 1926. This year several more will be added, so that, as time goes on, more and more difficulty will be experienced in ascertaining the exact business in the territories served by these plants. An additional complication is the fact that distributors in several territories are doing similar assembly work on the lines handled by them.

However, the Automotive Division of the Department of Commerce at Washington announces that branch assembly operations last year accounted for 174,929 units. Addition of this number to the shipments of complete vehicles would give a total of 555,505 units for 1926. The branch assembly operations for 1925 were announced as 180,350 and a similarly computed figure for that year is 557,425.

Both of these calculations are believed to be too high, as an undetermined number of automobiles reported in both years is also included in the declared shipments of complete vehicles. Approximate deductions can be made, based on a general knowledge of assembly operations in the various territories, and the assumption is warranted that the duplication was about 15 per cent for 1925 and about 25 per cent for 1926. There can be no question of a decrease in the business last year of certain of these assembly operations which, unfortunately, can only be guessed at and not definitely fixed.

If the estimates are correct—and the belief is that they are reasonably close—sales last year were 510,873 units (cars and trucks) in all countries. The comparative figure for 1925 would be 529,200, so that the decrease last year was 3.2 per cent.

Motor Vehicle Exports From United States and Canada



It should be noted that the overseas shipments of car and truck engines decreased last year, at least in part a reflection of assembly operations.

Export Shipments by Units

	1926	1925	1924	Increase 1926 over 1925	Unit Value 1926	Unit Value 1925
Passenger Cars						
From U. S.	238,481	244,300	151,380	— 2.6	$742.	$755.
From Canada.	53,628	58,005	43,833	— 7.7	480.	478.
Total passenger cars	292,109	302,305	195,213	— 3.3	$692.	$668.
Motor Trucks						
From U. S.	66,775	58,624	27,352	+13.7	$706.	$642.
From Canada.	20,692	16,146	12,772	+27.8	336.	327.
Total Motor Trucks	87,467	74,770	40,124	+16.8	$616.	$574.
Total Cars and Trucks	379,576	377,075	235,337	+ .2	....	....
Branch Assemblies Cars and Trucks	174,929	180,350	142,346	— 3.3	....	....
Tires						
From U. S.						
Casings ...	1,497,132	1,628,182	1,249,967	— 8.0	$16.32	$12.91
Inner tubes.	1,127,175	1,475,460	1,104,145	—23.4	2.20	2.02
Solid	98,122	112,592	102,782	—12.8	35.21	28.23
From Canada						
Casings ...	1,520,070	912,265	....	+66.6	9.63	10.67
Inner tubes.	1,135,948	1,011,865	....	+12.4	2.27	1.68
Solid	9,711	10,210	....	— 4.7	32.20	24.31
Other Automotive Products						
Motorcycles	22,670	22,825	16,859	— 1.0	$217.	$222.
Tractors ..	51,242	45,938	25,221	+11.4	594.	608.
Automobile engines .	118,428	145,848	....	—18.6	106.	105.
Trailers ...	970	623	....	+55.5	349.	430.
Storage batteries ...	283,241	209,670	248,667	+35.2	12.15	14.10

(Alaska, Porto Rico and Hawaii not included.)

Export Shipments by Value

	1926	1925	Increase 1926 over 1925
Passenger Cars			
From United States.....	$176,481,302	$184,895,830	— 4.5
From Canada	25,779,659	27,794,884	— 7.8
Total	$202,260,961	$212,690,714	— 5.2
Motor Trucks			
From United States.....	$47,079,424	$37,703,302	+24.7
From Canada	6,957,242	5,250,002	+32.4
Total	$54,036,666	$42,953,304	+25.8
Parts			
From United States.....	$83,927,732	$80,311,166	+ 4.4
From Canada	5,485,486	6,372,728	—14.2
Total Parts	$89,413,218	$86,683,894	+ 3.1
Tires			
From United States.....	$30,839,589	$29,474,679	+ 4.6
Casings	21,358,907	23,021,557	...
Inner tubes	3,024,177	3,252,180	...
Solid	3,457,505	3,200,942	...
From Canada	$17,524,940	$11,675,845	+50.4
Casings	14,645,309	9,731,121	...
Inner tubes	2,567,105	1,695,795	...
Solid	312,526	248,929	...
Motorcycles	$4,915,949	$5,075,139	— 3.0
Tractors	30,485,519	27,965,593	+ 8.7
Cars and trucks, electric..	155,688	195,606	—20.3
Automobile engines	12,522,189	15,290,066	—18.2
Marine engines	1,721,726	2,121,806	—18.8
Trailers	339,987	281,513	+20.9
Storage batteries	3,443,421	2,681,288	+28.2
Ignition apparatus	1,904,103	2,708,142	—29.2
Servicing appliances	6,861,746	5,432,220	+26.3
Total	$62,350,328	$61,751,373	+ 1.0
Grand Total	$456,425,702	$442,964,972	+ 3.2

(Alaska, Porto Rico and Hawaii not included.)

U. S. Parts and Tires

Countries	PARTS—VALUE				TIRES—VALUE						
					Total	Total	Total	1926			
	1923	1924	1925	1926	1923	1924	1925	Casings	Inners	Solids	Total
Europe:											
Austria	$3,441	$3,353	$17,331	$100,003	$23,446	$13,827	$47,959	$65,165	$6,133	$1,573	$72,871
Azores and Madeira	3,091	3,651	11,648	168,879	3,663	4,180	3,623	8,588	1,500	.....	10,088
Belgium	1,497,325	7,547,100	2,758,688	1,922,309	113,381	240,211	515,168	337,632	30,371	6,796	374,799
Bulgaria	418	2,928	11,190	2,841	1,492	2,428	5,240	2,191	363	.....	2,554
Czechoslovakia	2,372	11,766	22,117	46,211	8,171	7,054	202,063	285,692	24,559	57,961	368,212
Denmark	3,413,222	7,956,309	4,242,708	4,141,444	647,158	699,690	1,027,389	567,298	71,114	14,289	652,701
Esthonia	2,790	2,377	1,632	3,406	13,660	4,871	4,679	1,574	653	74	2,301
Finland	12,671	24,914	92,313	227,940	65,351	120,118	174,633	227,491	30,272	3,760	261,523
France	2,869,137	4,449,883	4,436,612	2,385,969	90,135	190,114	530,121	321,673	38,542	1,699	361,914
Germany	11,310	148,146	714,361	1,255,914	58,572	36,452	348,735	1,621,665	195,298	2,280	1,819,243
Gibraltar	3,899	3,008	5,503	5,981	306	.....	.....	212	67	.....	279
Greece	38,786	81,674	140,574	62,775	127,318	109,925	284,696	130,375	5,700	9,252	145,327
Hungary	468	1,888	13,407	23,130	6,224	6,962	8,496	18,673	4,645	.....	23,318
Iceland and Farce Islands	2,047	5,112	9,669	9,902	10,154	11,477	18,788	17,289	1,972	.....	19,261
Italy	387,556	730,982	1,029,846	1,028,927	178,909	112,263	93,792	84,314	12,673	997	97,984
Latvia	3,213	2,763	3,045	6,437	17,030	11,609	29,380	10,733	736	430	11,899
Lithuania	29	1,199	1,174	1,648	5,308	3,428	3,160	5,307	943	.....	6,250
Malta, Gozo and Cyprus Is.	5,341	9,516	9,571	14,749	6,419	8,766	5,125	506	126	121	753
Netherlands	212,564	838,921	802,149	729,102	209,905	285,443	544,420	537,551	58,614	7,304	603,469
Norway	215,990	152,687	187,639	163,057	434,785	306,531	428,869	345,967	42,877	30,729	419,573
Poland and Danzig	74,313	74,496	64,422	7,805	7,919	20,888	77,360	45,627	1,790	1,163	48,580
Portugal	37,996	46,752	84,744	147,869	32,067	80,920	94,318	137,528	17,715	428	155,671
Rumania	20,018	30,462	64,816	77,979	27,488	10,240	32,298	65,829	9,642	1,200	76,671
Russia	23,639	54,310	213,136	25,607	20,204	17,965	71,025	25,107	10,264	1,130	36,501
Spain	2,726,743	1,805,290	1,495,837	1,594,313	411,665	280,404	573,138	676,396	97,170	110,230	883,796
Sweden	379,904	508,568	722,424	761,759	698,578	817,991	1,098,214	805,834	82,834	17,391	906,059
Switzerland	33,415	60,977	82,374	108,067	71,043	116,204	172,252	341,377	44,208	38,847	424,432
Turkey	9,253	16,903	40,570	44,721	7,783	111	3,677	13,553	1,531	865	15,949
United Kingdom	4,341,594	4,326,764	5,344,252	4,459,866	3,765,842	2,970,688	2,970,680	2,515,790	195,960	518,452	3,230,202
Irish Free State	575,145	537,095	270,580	418,353	61,276	18,259	28,064	25,964	5,633	.....	31,597
Yugoslavia and Albania	8,034	5,085	15,912	19,982	25,160	4,099	40,226	42,453	3,780	2,692	48,925
North and South America:											
British Honduras	3,170	3,909	5,682	10,231	2,797	2,353	3,190	2,671	535	.....	3,206
Canada	18,635,289	15,999,001	28,209,210	31,780,943	876,971	735,187	439,175	257,231	53,812	38,814	349,857
Costa Rica	13,568	26,582	28,198	47,528	19,473	25,270	34,762	61,319	7,382	4,409	73,110
Guatemala	19,850	33,812	75,772	139,714	22,840	29,216	65,536	104,790	17,990	4,588	127,368
Honduras	27,377	27,671	36,146	34,660	31,646	39,262	43,534	41,360	4,944	17,162	63,466
Nicaragua	4,563	13,645	16,907	20,642	9,426	10,975	18,026	13,495	2,983	1,626	18,104
Panama	120,629	127,892	143,547	176,061	136,383	165,529	250,678	211,597	32,739	18,040	262,376
Salvador	29,091	38,254	66,169	92,509	48,163	58,653	84,503	98,198	25,441	18,900	142,539
Mexico	938,287	1,007,132	1,565,032	2,021,217	937,459	1,221,219	1,297,965	1,077,269	144,124	66,355	1,287,748
Newfoundland and Labrador	24,320	18,847	23,630	20,566	25,197	23,214	29,517	24,995	5,111	495	30,601
Barbados	19,236	29,218	32,113	41,168	11,377	7,917	9,459	7,654	1,055	1,959	10,668
Jamaica	135,090	120,557	182,932	188,123	107,118	66,494	43,805	8,693	1,199	12,193	22,085
Trinidad and Tobago	63,640	61,662	71,983	57,000	53,014	34,503	26,343	18,331	2,690	2,605	23,626
Other British West Indies	36,762	37,712	55,800	74,937	21,635	24,784	28,560	15,502	3,586	6,022	25,110
Cuba	1,030,722	1,248,713	1,204,080	958,209	1,144,893	1,458,482	1,516,825	1,354,102	176,956	290,306	1,821,364
Dominican Republic	112,099	140,264	180,435	201,998	149,713	207,555	219,304	122,601	20,693	20,988	164,282
Dutch West Indies	12,450	15,468	23,069	34,816	13,762	30,861	44,398	39,511	9,665	248	49,424
French West Indies	16,179	14,480	19,717	8,487	16,618	8,247	22,884	14,925	1,738	653	17,316
Haitian Republic	64,201	66,340	79,848	93,395	46,317	42,098	79,347	75,627	13,447	717	89,791
Virgin Islands of U. S.	8,723	9,243	10,625	9,145	5,600	7,012	6,631	3,206	1,167	1,063	5,436
Argentina	6,198,477	7,561,022	5,986,614	6,597,865	1,317,512	1,551,422	2,509,524	2,817,639	386,524	390,281	3,594,444
Bolivia	11,537	24,003	44,259	62,768	19,541	8,263	31,674	27,954	5,068	866	33,888
Brazil	2,620,599	5,501,489	5,076,652	3,612,032	355,903	400,194	1,123,382	943,727	119,877	106,179	1,169,783
Chile	261,889	358,904	900,915	1,068,474	214,843	208,632	429,618	347,927	38,366	52,069	438,362
Colombia	151,872	259,607	426,620	686,081	149,622	180,913	323,484	415,899	80,918	38,285	535,102
Ecuador	16,223	34,774	42,831	36,826	29,328	29,628	45,259	37,709	8,387	3,303	49,399
British Guiana	19,284	24,762	21,772	15,793	9,720	4,414	2,285	4,588	302	930	5,820
Dutch Guiana	2,162	2,891	4,145	3,334	3,972	2,681	3,533	1,165	342	224	1,731
French Guiana	2,868	2,518	2,540	1,346	309	522	2,014	219	31	79	329
Paraguay	4,701	5,554	8,669	15,898	660	4,284	4,799	8,993	1,296	147	10,436
Peru	218,140	416,703	624,466	513,046	226,733	418,270	367,319	321,914	51,253	20,237	393,404
Uruguay	277,041	321,328	547,709	506,268	240,491	258,782	457,112	421,215	46,589	56,301	524,105
Venezuela	115,802	168,439	349,234	564,137	170,230	247,991	439,716	460,630	76,786	15,096	552,512
Asia:											
Aden	5,080	4,144	3,325	7,743	11,793	5,560	14,477	5,521	1,309	187	7,017
British India	329,830	410,713	693,357	995,138	242,668	259,769	516,586	449,352	33,280	89,201	571,833
Ceylon	26,997	56,944	110,249	166,964	50,760	72,095	124,853	158,517	13,339	51,559	223,415
British Malaya	253,083	242,465	507,124	621,313	149,428	165,622	265,396	196,234	6,539	47,640	250,413
Other British East Indies	970	1,526	1,930	.....	.....	.....	76	.....	.....	.....	.....
China	96,084	144,975	312,609	368,547	103,796	96,420	238,721	309,519	37,346	42,100	388,965
Java and Madura	200,150	230,118	301,717	400,271	251,095	300,368	471,267	415,450	37,213	72,978	525,641
Other Dutch East Indies	35,637	50,896	91,979	129,432	44,000	28,892	29,716	49,176	5,528	4,884	59,588
French Indo-China	6,317	7,022	8,607	4,043	5,917	1,580	532	1,389	263	462	2,114
Hejaz, Arabia and Iraq	20,575	18,390	26,097	52,015	27,637	5,133	77,510	89,381	13,446	14,665	117,492
Hongkong	36,943	42,658	68,915	60,626	28,085	14,354	17,914	4,810	964	1,137	6,911
Japan	1,304,077	1,202,539	1,848,987	2,873,991	777,259	1,013,611	1,090,135	881,750	166,060	200,800	1,248,610
Kwantung	28,310	15,857	10,822	35,483	6,382	4,261	602	2,225	384	.....	2,609
Palestine and Syria	95,716	103,316	120,972	143,306	70,857	58,329	127,200	103,673	10,778	1,121	115,572
Persia	1,225	2,391	5,265	22,066	1,400	2,285	1,364	50,816	12,167	1,462	64,445
Philippine Islands	209,643	369,249	538,159	672,728	723,354	820,461	1,006,217	833,909	154,404	179,524	1,167,837
Russia	477	504	704	115	572	3,103	.....	.....	.....	.....	.....
Siam	5,824	7,225	12,350	37,303	4,785	7,341	2,187	5,000	587	1,485	7,072
Turkey	4,229	3,392	7,871	19,430	1,237	798	197	4,863	1,399	326	6,588
Other Asia	101	1,583	.....	171	.....	.....	286	337	17	.....	354
Oceania:											
Australia	2,276,490	2,764,924	3,497,407	4,065,734	1,210,360	1,306,590	1,881,308	1,184,689	76,663	472,208	1,733,560
New Zealand	594,457	831,345	1,024,830	1,258,143	1,228,165	887,823	1,127,898	329,184	34,565	135,586	499,335
Other British Oceania	6,760	8,175	11,843	22,077	4,253	2,317	2,154	7,231	1,603	3,018	11,852
French Oceania	7,493	13,674	13,694	9,456	8,246	6,746	7,071	6,508	1,017	2,823	10,348
Other Oceania	6,904	5,764	13,975	.....	5,905	5,230	23,097	.....	.....	.....	.....
Africa:											
Belgian Congo	10,164	9,479	43,754	51,216	1,298	1,084	1,297	10,944	2,830	.....	13,774
British West Africa	146,203	130,286	207,741	202,050	119,729	34,411	33,946	59,360	5,818	.....	65,178
British South Africa	574,322	936,577	1,277,706	1,381,886	531,907	430,200	389,907	256,131	24,179	30,307	310,617
British East Africa	38,021	87,070	154,197	186,273	58,861	68,835	84,477	59,345	5,585	1,968	66,898
Canary Islands	33,190	49,351	69,600	78,569	65,577	68,761	79,570	83,409	8,703	36,527	128,639
Egypt	70,038	75,070	119,368	129,075	66,830	41,964	97,176	79,174	15,713	45,227	140,114
Algeria and Tunis	1,561	10,316	8,473	5,297	6,496	1,427	.....	2,339	264	601	3,204
Other French Africa	35,123	43,486	60,859	82,788	912	679	6,116	2,712	678	.....	3,390
Italian Africa	1,962	210	1,342	1,924	1,153	.....	2,206	687	447	.....	1,134
Liberia	159	362	3,429	3,405	.....	612	6,270	1,377	298	220	1,895
Morocco	46,834	30,284	68,469	85,462	8,175	6,650	7,130	41,984	6,383	.....	48,367
Portuguese East Africa	10,630	26,435	47,339	27,825	4,492	8,831	9,752	5,475	951	.....	6,426
Other Portuguese Africa	18,034	24,820	20,324	36,181	6,053	9,100	10,403	10,757	2,456	.....	13,213
Spanish Africa	4,633	26,980	17,228	17,847	8,802	2,657	12,999	4,628	320	.....	4,948
Other Countries	6,492	3,436	312	26,717	1,612	3,407	.....	89	.....	.....	89
Total	$54,682,303	$71,161,226	$80,310,494	$83,944,772	$19,409,529	$19,774,651	$27,210,162	$24,355,955	$3,024,177	$3,458,819	$30,838,951

American Car Exports

Country	Up to $500	$500 to $800	$800 to $1200	$1200 to $2000	Over $2000	Total
Europe—						
	402	*25*	*17*	*23*	*1*	*468*
Austria	$174,548	$18,459	$18,335	$35,083	$2,062	$248,487
	64	*13*	*5*	*1*		*83*
Azores & Madeira Islands	$26,234	$9,320	$5,089	$1,297		$41,940
	1,677	*1,281*	*2,646*	*709*	*229*	*6,542*
Belgium	$740,587	$922,166	$2,903,048	$1,159,667	$612,767	$6,338,235
		12	*11*	*3*		*26*
Bulgaria		$9,395	$11,290	$4,347		$25,032
	4	*71*	*73*	*26*	*14*	*188*
Czechoslovakia	$1,815	$54,450	$80,801	$42,201	$34,596	$213,863
	7,040	*1,815*	*1,096*	*119*	*62*	*10,132*
Denmark	$2,899,031	$1,362,303	$1,133,164	$184,057	$170,386	$5,748,941
	70	*398*	*451*	*138*	*32*	*1,089*
Finland	$35,413	$283,408	$474,684	$215,136	$81,573	$1,090,214
	38	*152*	*344*	*131*	*134*	*799*
France	$16,782	$123,140	$378,191	$207,712	$394,963	$1,120,788
	296	*1,079*	*1,267*	*296*	*282*	*3,220*
Germany	$125,073	$769,118	$1,346,943	$431,288	$746,335	$3,418,757
	2	*4*	*2*	*2*	*2*	*12*
Gibraltar	$926	$3,068	$1,861	$3,117	$5,000	$13,972
	10	*58*	*20*	*9*	*7*	*104*
Greece	$5,369	$41,109	$20,763	$13,950	$25,462	$106,653
	24	*46*	*52*	*10*	*3*	*135*
Hungary	$11,728	$31,568	$56,937	$17,131	$7,775	$125,139
Iceland & Faroe Islands	*8*	*5*	*5*	*1*		*19*
	$3,950	$3,727	$5,165	$1,382		$14,224
	4,181	*19*	*47*	*9*	*42*	*4,298*
Italy	$1,255,914	$13,470	$50,455	$13,301	$135,998	$1,469,138
		23	*31*	*10*		*64*
Latvia		$17,909	$32,763	$16,133		$66,805
		19	*9*	*1*		*29*
Lithuania		$11,995	$9.337	$2,000		$23,332
Malta, Gozo & Cyprus	*31*	*31*	*17*	*2*		*81*
	$13,073	$20,789	$17,801	$2,747		$54,410
	10	*537*	*711*	*292*	*116*	*1,666*
Netherlands	$4,378	$392,183	$761,189	$455,367	$347,108	$1,960,225
	134	*291*	*261*	*83*	*24*	*793*
Norway	$64,033	$209,062	$267,233	$133,267	$79,305	$752,900
	11	*12*	*12*	*8*	*4*	*47*
Poland & Danzig	$5,537	$8,926	$13,383	$13,200	$10,900	$51,946
	373	*222*	*212*	*70*	*25*	*902*
Portugal	$185,672	$166,784	$228,530	$110,342	$65,454	$756,782
	2	*194*	*217*	*56*	*20*	*489*
Rumania	$752	$148,041	$231,225	$90,656	$53,183	$523,857
	9	*13*	*12*	*3*	*18*	*55*
Russia	$3,922	$10,064	$10,678	$4,836	$51,046	$80,546
	1,147	*1,276*	*1,680*	*673*	*280*	*5,056*
Spain	$414,338	$956,748	$1,782,273	$1,059,570	$799,990	$5,012,919
	115	*1,718*	*1,348*	*305*	*123*	*3,609*
Sweden	$53,192	$1,256,430	$1,414,073	$469,348	$324,609	$3,517,652
	6	*171*	*293*	*235*	*135*	*840*
Switzerland	$3,134	$128,255	$326,026	$373,091	$342,371	$1,172,877
	76	*66*	*61*	*23*		*226*
Turkey	$35,963	$47,763	$60,434	$34,782		$178,942
	934	*3,025*	*1,177*	*371*	*319*	*5,826*
United Kingdom	$416,916	$1,775,503	$1,170,806	$608,870	$848,889	$4,820,984
	38	*59*	*27*	*1*		*125*
Irish Free State	$14,902	$46,521	$28,281	$1,985		$91,689
	35	*86*	*50*	*16*	*5*	*192*
Yugoslavia	$16,726	$68,845	$52,455	$23,765	$12,958	$174,749
America—	*27*	*2*	*2*			*31*
British Honduras	$9,202	$1,395	$1,925			$12,522
	3,768	*12,637*	*6,301*	*1,690*	*1,008*	*25,404*
Canada	$1,203,451	$7,639,622	$6,143,281	$2,575,184	$2,717,723	$20,279,261
	8	*75*	*94*	*20*	*2*	*199*
Costa Rica	$3,811	$53,229	$95,791	$31,516	$4,500	$188,847
	34	*82*	*150*	*74*	*33*	*373*
Guatemala	$13,751	$63,323	$162,897	$113,040	$86,675	$439,686
	48	*23*	*11*	*3*		*85*
Honduras	$17,891	$14,318	$10,489	$4,275		$46,973
	11	*30*	*57*	*12*	*1*	*111*
Nicaragua	$3,899	$22,186	$61,143	$17,205	$3,500	$107,933
	200	*147*	*186*	*34*	*9*	*576*
Panama	$84,592	$107,120	$202,083	$52,129	$23,139	$469,063
	18	*86*	*88*	*60*	*33*	*285*
Salvador	$6,753	$64,470	$96,023	$91,934	$86,352	$345,532
	5,358	*2,187*	*1,514*	*483*	*273*	*9,815*
Mexico	$1,830,836	$1,462,353	$1,516,835	$713,221	$769,163	$6,292,408
Newfoundland & Labrador	*47*	*75*	*59*	*9*	*5*	*192*
	$18,732	$51,780	$62,339	$9,615	$12,512	$154,978
	17	*25*	*21*	*7*	*1*	*71*
Barbados	$8,213	$17,754	$22,195	$9,918	$2,556	$60,636
	298	*268*	*125*	*19*	*4*	*714*
Jamaica	$115,251	$174,475	$126,178	$27,796	$9,936	$453,636
	50	*42*	*34*	*10*	*1*	*137*
Trinidad & Tobago	$23,827	$28,977	$33,005	$14,728	$2,750	$103,287
Other British West Indies	*125*	*36*	*40*	*14*		*215*
	$41,955	$25,242	$42,340	$22,611		$132,148
	2,743	*1,002*	*617*	*199*	*179*	*4,740*
Cuba	$973,863	$671,530	$606,374	$304,604	$511,650	$3,068,021
	546	*103*	*130*	*26*	*21*	*826*
Dominica Republic	$234,736	$73,222	$133,146	$38,690	$56,483	$536,277
	20	*39*	*62*	*10*	*3*	*134*
Dutch West Indies	$8,291	$28,380	$65,930	$14,746	$7,500	$124,847
	2		*4*			*6*
French West Indies	$685		$4,343			$5,028
	88	*87*	*88*	*15*	*6*	*284*
Haitian Republic	$33,040	$62,813	$88,730	$22,117	$15,229	$221,929
	20	*8*				*28*
Virgin Is.	$6,828	$5,296				$12,124

Country	Up to $500	$500 to $800	$800 to $1200	$1200 to $2000	Over $2000	Total
	15,105	*4,839*	*4,168*	*1,066*	*374*	*25,552*
Argentina	$6,565,106	$3,387,057	$4,355,562	$1,619,410	$1,040,994	$16,968,129
	9	*21*	*97*	*19*	*23*	*169*
Bolivia	$4,518	$16,626	$108,825	$31,237	$61,451	$222,657
	10,394	*3,306*	*2,014*	*583*	*406*	*16,703*
Brazil	$3,784,796	$2,392,089	$2,059,699	$882,334	$1,073,251	$10,192,169
	495	*421*	*320*	*99*	*48*	*1,383*
Chile	$146,622	$299,597	$322,260	$148,656	$139,849	$1,056,984
	450	*386*	*501*	*200*	*108*	*1,645*
Colombia	$184,483	$280,789	$537,780	$281,939	$312,589	$1,597,580
	45	*17*	*24*	*19*		*105*
Ecuador	$16,438	$12,478	$24,684	$27,741		$81,341
		9	*7*	*1*		*17*
British Guiana		$6,225	$7,185	$1,525		$14,935
	13		*1*	*1*	*1*	*16*
Dutch Guiana	$4,985		$1,190	$2,098	$2,273	$10,546
	29	*21*	*9*			*59*
Paraguay	$10,496	$13,451	$9,331			$33,278
	537	*190*	*262*	*49*	*33*	*1,071*
Peru	$204,627	$136,024	$271,869	$73,444	$90,014	$775,978
	3,633	*604*	*539*	*147*	*50*	*4,973*
Uruguay	$1,098,957	$443,699	$564,045	$226,526	$142,846	$2,476,073
	553	*429*	*1,198*	*129*	*86*	*2,395*
Venezuela	$206,397	$318,315	$1,221,063	$192,745	$231,310	$2,169,830
Asia—	*18*	*176*	*5*			*199*
Aden	$9,138	$127,932	$5,105			$142,175
	196	*1,246*	*813*	*114*	*9*	*2,378*
British India	$88,216	$937,422	$870,261	$174,309	$25,488	$2,095,696
	105	*256*	*267*	*45*	*5*	*678*
Ceylon	$47,594	$196,013	$274,878	$67,020	$14,531	$600,036
	410	*413*	*331*	*25*	*12*	*1,191*
British Malaya	$204,753	$312,408	$344,394	$38,370	$29,785	$929,710
	688	*498*	*437*	*73*	*28*	*1,724*
China	$253,706	$365,123	$449,614	$112,440	$76,661	$1,257,544
	238	*1,010*	*598*	*134*	*47*	*2,027*
Java & Madura	$116,184	$739,344	$596,044	$206,133	$121,437	$1,779,142
Other Dutch East Indies	*49*	*256*	*113*	*39*	*15*	*472*
	$24,693	$186,557	$113,133	$61,690	$40,354	$426,427
	10	*6*				*16*
French Indo-China	$3,650	$4,789				$8,439
Hejaz, Arabia & Iraq	*298*	*64*	*34*	*13*		*409*
	$108,990	$46,411	$36,459	$17,756		$209,616
	99	*21*	*31*	*2*	*1*	*154*
Hongkong	$35,001	$15,948	$28,837	$2,703	$4,607	$87,096
	290	*440*	*717*	*96*	*99*	*1,642*
Japan	$93,405	$323,526	$748,982	$157,284	$276,594	$1,599,791
	244	*56*	*17*	*12*	*1*	*330*
Kwantung	$88,567	$39,304	$18,007	$16,761	$2,500	$165,139
	597	*241*	*244*	*39*		*1,121*
Palestina &Syria	$210,927	$171,210	$242,360	$59,938		$684,435
	213	*23*	*13*			*249*
Persia	$73,869	$16,932	$12,875			$103,676
	2,445	*1,133*	*696*	*182*	*90*	*4,546*
Philippine Is	$979,330	$831,661	$744,277	$273,345	$251,778	$3,080,391
	38	*47*	*19*			*104*
Siam	$17,697	$34,673	$21,822			$74,192
	65	*7*	*5*	*1*		*78*
Turkey	$31,248	$4,731	$5,025	$1,021		$42,625
Oceania—	*22,160*	*14,047*	*10,961*	*1,060*	*731*	*48,979*
Australia	$8,772,636	$9,662,248	$12,004,812	$1,666,498	$1,897,670	$34,003,864
	3,117	*2,107*	*3,318*	*330*	*117*	*8,989*
New Zealand	$1,398,293	$1,524,066	$3,647,261	$509,249	$293,626	$7,372,495
Other British Oceania	*27*	*65*	*24*	*5*		*121*
	$12,551	$47,032	$24,243	$7,350		$91,176
	8	*3*	*3*	*2*		*16*
French Oceania	$3,745	$2,100	$2,695	$3,000		$11,540
Africa—	*32*	*6*	*2*			*40*
Belgian Congo	$13,165	$4,403	$2,251			$19,819
	42	*55*	*50*	*13*		*160*
British West Africa	$17,613	$41,345	$52,737	$19,544		$131,239
	4,052	*4,380*	*5,914*	*314*	*20*	*14,680*
British S. Africa	$1,692,464	$3,123,114	$6,364,044	$471,628	$56,031	$11,707,281
	196	*260*	*288*	*31*	*3*	*778*
British E. Africa	$90,752	$195,398	$318,870	$49,893	$8,259	$663,172
	6	*60*	*74*	*14*	*4*	*158*
Canary Is	$3,046	$44,611	$76,941	$21,368	$11,276	$157,242
	350	*273*	*204*	*25*	*7*	*859*
Egypt	$128,150	$190,985	$215,315	$38,985	$20,497	$593,932
	19	*1*	*6*	*3*		*29*
Algeria & Tunis	$7,300	$867	$6,961	$6,284		$21,412
Other French	*175*	*20*	*1*			*196*
Africa	$55,723	$14,464	$1,100			$71,287
	11	*2*	*1*	*2*		*16*
Liberia	$4,826	$1,771	$994	$3,720		$11,311
	204	*11*	*23*			*238*
Morocco	$77,436	$8,195	$24,281			$109,912
Portuguese East Africa	*33*	*34*	*178*	*1*	*1*	*247*
	$16,011	$22,994	$207,890	$1,410	$2,300	$250,605
Other Portuguese Africa	*69*	*19*	*8*			*96*
	$29,056	$14,277	$8,036			$51,369
	2	*14*	*1*			*17*
Spanish Africa	$878	$9,484	$928			$11,290
	9	*11*				*20*
Other Countries	$3,095	$8,146				$11,241
	97,943	*67,179*	*56,273*	*11,216*	*5,775*	*238,386*
Totals	$38,110,648	$46,053,838	$59,323,185	$17,268,911	$15,690,369	$176,446,951

American Truck Exports

Country	Total 1925	1926 Up to 1 Ton	1926 1 to 2½ Tons	1926 Over 2½ Tons	Total 1926
Austria		*10*	*2*		*12*
		$6,891	$2,792		$9,683
Azores & Madeira Island	*37*	*35*	*3*	*2*	*40*
	$20,074	$16,724	$3,410	$2,984	$23,118
Belgium	*2,269*	*1,917*	*8*		*1,925*
	$889,005	$743,548	$10,827		$754,375
Czechoslovakia	*1*				
	$1,405				
Denmark	*3,246*	*3,191*	*93*	*5*	*3,289*
	$1,382,927	$1,308,108	$125,158	$10,872	$1,444,138
Finland	*73*	*27*	*89*		*116*
	$79,361	$33,144	$121,905		$155,049
France	*3*	*103*	*3*	*1*	*107*
	$2,948	$52,244	$6,620	$1,941	$60,805
Germany	*549*	*1,044*	*27*	*6*	*1,077*
	$418,561	$398,008	$29,333	$9,669	$437,010
Greece	*68*	*2*	*2*		*4*
	$77,485	$708	$1,863		$2,571
Italy	*7,419*	*2,284*	*7*		*2,291*
	$1,870,517	$585,803	$8,441		$594,244
Latvia	*8*		*2*		*2*
	$6,187		$1,935		$1,935
Malta, Gozo & Cyprus	*1*	*2*			*2*
	$395	$1,062			$1,062
Netherlands	*170*	*23*	*187*	*7*	*217*
	$271,492	$13,565	$242,073	$18,840	$274,478
Norway	*107*	*41*	*127*	*11*	*179*
	$136,290	$38,207	$176,544	$37,327	$252,078
Poland & Danzig	*21*		*1*		*1*
	$28,086		$3,000		$3,000
Portugal	*55*	*108*	*15*	*3*	*126*
	$29,924	$56,224	$15,299	$12,386	$83,909
Rumania	*13*		*2*		*2*
	$8,120		$1,324		$1,324
Russia	*480*	*167*	*5*	*8*	*180*
	$300,988	$20,134	$10,136	$46,258	$76,528
Spain	*1,374*	*1,970*	*233*	*24*	*2,227*
	$644,032	$851,535	$243,784	$84,364	$1,179,683
Sweden	*271*	*106*	*257*	*4*	*367*
	$278,378	$79,549	$286,640	$6,686	$372,875
Switzerland	*5*	*6*	*7*	*2*	*15*
	$3,018	$3,545	$7,496	$7,000	$18,041
Turkey		*34*	*29*		*63*
		$16,763	$19,840		$36,603
United Kingdom	*4,320*	*3,853*	*1,017*	*25*	*4,895*
	$2,518,076	$1,700,070	$1,279,976	$38,454	$3,018,500
Irish Free State	*30*	*23*	*3*		*26*
	$23,345	$13,855	$3,139		$16,994
British Honduras	*6*	*5*	*1*		*6*
	$2,631	$2,826	$1,478		$4,304
Canada	*1,837*	*1,026*	*1,727*	*271*	*3,024*
	$2,692,044	$808,580	$2,290,783	$957,425	$4,056,788
Costa Rica	*49*	*28*	*29*	*1*	*58*
	$45,735	$20,558	$34,316	$1,632	$56,506
Guatemala	*148*	*100*	*166*	*7*	*273*
	$180,264	$60,193	$238,540	$21,544	$320,277
Honduras	*35*	*22*	*7*	*2*	*31*
	$33,423	$11,173	$10,606	$6,200	$27,979
Nicaragua	*12*	*8*	*8*	*1*	*17*
	$29,880	$3,455	$11,394	$4,895	$19,744
Panama	*173*	*142*	*47*	*6*	*195*
	$130,770	$96,217	$67,393	$18,242	$181,852
Salvador	*82*	*39*	*65*	*50*	*154*
	$173,468	$24,011	$116,167	$159,028	$299,206
Mexico	*3,586*	*1,650*	*437*	*115*	*2,202*
	$2,041,277	$1,004,666	$642,798	$384,863	$2,032,327
Newfoundland & Labrador	*12*	*17*	*4*		*21*
	$7,814	$6,939	$7,799		$14,738
Barbados	*9*		*1*	*2*	*3*
	$16,282		$1,178	$3,337	$4,515
Jamaica	*208*	*239*	*18*		*257*
	$121,493	$88,277	$29,607		$117,884
Trinidad & Tobago	*31*	*16*	*14*	*2*	*32*
	$29,371	$11,428	$16,058	$9,912	$37,398
Other British West Indies	*87*	*66*	*6*	*1*	*73*
	$49,179	$25,340	$10,085	$3,295	$38,720
Cuba	*2,087*	*1,513*	*293*	*103*	*1,909*
	$1,271,216	$570,056	$416,810	$406,905	$1,393,771
Dominican Republic	*185*	*220*	*77*	*15*	*312*
	$192,565	$104,241	$92,493	$34,650	$231,384
Dutch West Indies	*50*	*69*	*11*	*1*	*81*
	$18,824	$25,859	$22,178	$4,665	$52,702
French West Indies	*22*	*23*			*23*
	$8,129	$8,014			$8,014
Haitian Republic	*145*	*129*	*48*	*5*	*182*
	$121,410	$63,014	$66,972	$15,313	$145,299
Virgin Island of U. S.	*7*	*2*			*2*
	$2,692	$913			$913
Argentina	*1,881*	*1,883*	*344*	*246*	*2,473*
	$1,750,817	$804,089	$637,298	$755,739	$2,197,126
Bolivia	*77*	*18*	*52*	*6*	*76*
	$87,369	$15,138	$78,585	$13,834	$107,557
Brazil	*4,695*	*5,610*	*215*	*61*	*5,886*
	$1,920,500	$2,212,852	$241,536	$246,710	$2,701,098
Chile	*1,605*	*373*	*275*	*105*	*753*
	$1,378,360	$176,687	$403,178	$316,347	$896,212

Country	Total 1925	1926 Up to 1 Ton	1926 1 to 2½ Tons	1926 Over 2½ Tons	Total 1926
Colombia	*829*	*581*	*610*	*108*	*1,299*
	$675,764	$311,859	$854,671	$367,785	$1,534,315
Ecuador	*99*	*4*	*5*	*1*	*10*
	$56,891	$3,360	$9,179	$7,038	$19,577
British Guiana	*8*		*4*		*4*
	$7,093		$4,245		$4,245
French Guiana	*2*	*12*			*12*
	$1,027	$5,808			$5,808
Paraguay	*83*	*76*	*6*		*82*
	$29,032	$26,862	$5,890		$32,752
Peru	*1,458*	*527*	*457*	*17*	*1,001*
	$1,244,692	$233,821	$561,439	$41,771	$837,031
Uruguay	*1,362*	*1,148*	*187*	*24*	*1,359*
	$500,306	$325,691	$207,287	$80,932	$613,910
Venezuela	*845*	*765*	*403*	*62*	*1,230*
	$699,544	$362,222	$658,900	$243,501	$1,264,623
Aden	*5*				
	$3,970				
British India	*1,121*	*1,259*	*195*	*2*	*1,456*
	$893,914	$932,962	$221,861	$3,224	$1,158,047
Ceylon	*477*	*225*	*140*	*28*	*393*
	$546,788	$181,488	$185,190	$38,562	$405,240
British Malaya	*88*	*17*	*86*	*11*	*114*
	$123,165	$15,368	$124,187	$28,755	$168,310
China	*560*	*727*	*150*	*13*	*890*
	$406,036	$330,345	$169,319	$12,405	$512,069
Java & Madura	*87*	*113*	*82*	*4*	*199*
	$90,244	$80,534	$95,278	$15,022	$190,834
Other Dutch East Indies	*58*	*42*	*76*	*1*	*119*
	$57,978	$36,965	$91,751	$6,360	$135,076
French Indo China	*30*	*27*			*27*
	$10,853	$8,771			$8,771
Hejaz, Arabia & Iraq	*3*	*43*	*1*	*2*	*46*
	$3,428	$24,093	$1,326	$5,076	$30,495
Hongkong	*94*	*70*	*2*		*72*
	$43,796	$25,001	$2,512		$27,513
Japan	*69*	*82*	*55*	*30*	*167*
	$108,727	$44,991	$83,011	$164,173	$292,175
Kwantung	*105*	*45*	*22*	*2*	*69*
	$41,484	$17,593	$27,189	$3,850	$48,632
Palestine & Syria	*50*	*108*	*52*	*9*	*169*
	$44,056	$74,849	$57,701	$62,769	$195,319
Persia	*11*	*34*	*2*	*20*	*56*
	$28,696	$27,263	$2,719	$66,600	$96,582
Philippine Islands	*1,117*	*1,028*	*199*	*19*	*1,246*
	$653,460	$375,274	$255,973	$46,449	$677,696
Siam	*2*		*10*		*10*
	$2,090		$8,305		$8,305
Turkey		*14*	*1*		*15*
		$7,469	$805		$8,274
Australia	*7,574*	*12,624*	*1,879*	*647*	*15,150*
	$5,953,541	$6,350,003	$2,226,182	$1,753,781	$10,329,966
New Zealand	*1,396*	*1,223*	*523*	*87*	*1,833*
	$1,497,697	$570,733	$631,592	$200,196	$1,402,521
Other British Oceania	*14*	*16*	*7*		*23*
	$10,802	$8,059	$7,270		$15,329
French Oceania	*6*	*5*			*5*
	$6,013	$4,105			$4,105
Other Oceania	*3*				
	$1,845				
Belgian Congo	*378*	*279*	*2*	*6*	*287*
	$131,591	$96,227	$1,219	$19,812	$117,258
British West Africa	*1,144*	*398*	*740*	*3*	*1,141*
	$1,177,494	$354,892	$804,768	$4,500	$1,164,160
British South Africa	*525*	*902*	*352*	*32*	*1,286*
	$568,465	$478,179	$418,913	$97,392	$994,484
British East Africa	*432*	*326*	*97*	*3*	*426*
	$272,339	$184,331	$118,015	$8,011	$310,357
Canary Islands	*33*	*2*	*14*	*1*	*17*
	$22,232	$1,671	$17,221	$1,850	$20,742
Egypt	*34*	*376*	*3*	*3*	*382*
	$37,958	$126,612	$4,534	$5,823	$136,969
Algeria & Tunis	*7*	*7*			*7*
	$2,828	$2,582			$2,582
Other French Africa	*629*	*425*	*21*		*446*
	$283,166	$172,420	$22,059		$194,479
Italian Africa	*8*				
	$7,873				
Liberia	*15*	*17*	*5*		*22*
	$6,809	$9,847	$2,574		$12,421
Morocco	*157*	*88*	*3*	*8*	*99*
	$72,995	$32,765	$3,719	$26,677	$63,161
Portuguese East Africa	*60*	*4*	*13*		*17*
	$26,648	$2,595	$25,495		$28,090
Other Portuguese Africa	*55*	*98*	*38*	*2*	*138*
	$31,007	$50,957	$38,230	$10,820	$100,007
Spanish Africa	*30*		*1*		*1*
	$13,756		$1,075		$1,075
Other Countries	*12*	*218*	*11*	*23*	*252*
	$8,627	$78,401	$10,178	$52,963	$141,542
Total	*58,624*	*52,099*	*12,418*	*2,266*	*66,783*
	$37,702,847	$24,061,181	$16,000,569	$7,017,414	$47,079,164

Miscellaneous Exports

COUNTRIES	BRITISH (11 Months)							FRENCH (11 Months)		ITALIAN (10 Months)	CANADA	AMERICAN			
	Chassis		Parts	Passenger		Trucks		Cars	Truck	Automobiles	Parts	Electrics		Airplanes	
	No.	Value	Value	No.	Value	No.	Value	No.	No.	No.	Value	No.	Value	No.	Value
Algeria and Tunis								5,121	528	311					
Argentine	301	£156,265	£29,741	41	£17,882	18	£15,822	705	117	503	$1,120,530			6	$29,038
Australia	11,351	1,944,706	296,633	1,310	393,506	201	115,335	854	19	2,470	656,100	12	$32,614	39	6,903
Belgium	11	7,546	46,562	11	2,820	2	1,372	7,338	391	691	176,833				
Brazil	94	49,725	29,098	45	13,080	11	13,576	248	5	596	415,661			1	50
British Africa	447	150,647	119,822	1,703	316,082	150	56,371			825	369,057	1	1,925		
British India	261	84,556	227,208	1,844	438,878	129	54,196	747	4	1,780	410,408				
Canada	58	37,873	15,205	111	39,601	1	128	4				18	36,056	9	6,116
Ceylon	52	18,472	27,408	567	115,732	39	8,634				58,662				
China	67	22,056	6,181	364	66,378	9	6,296			112	3,040	1	2,500		
Denmark	2	66	79,346	129	34,027	6	7,311	1,120	10	356	209,244				
Dutch East Indies										855	257,494				
Egypt	8	2,211	10,092	175	38,989	9	5,730			957	708				
France	73	85,413	81,537	46	24,150	4	2,612			1,933					
French Indo-China								2,448	157						
Germany	4	3,388	38,530	41	11,425	4	2,265	1,386	113	2,667	43,231				
Irish Free State	107	40,677	206,846	1,962	334,850	118	49,395			191	26,619				
Italy			57,124	25	5,013			1,436	101		306				
Japan	11	4,522	21,501	72	13,038	12	4,995	419	2	159	43,654	3	3,201		
Madagascar								278	81		508				
Mexico			392								66	58	48,355	9	73,650
Morocco	2	128	251					1,522	225	248					
Netherlands	13	7,926	23,780	81	21,003	2	1,262	1,600	22	572	1,202	1	2,294		
New Zealand	619	170,513	86,077	1,781	362,265	63	37,896			31	351,380				
Norway	15	4,744	5,445	62	11,454	8	2,960	202		257	544				
Portugal	49	6,435	3,781	89	22,759	1	130	1,029	25	226					
Russia			12,884	39	38,518	6	5,642	213	178	166	102				
Siam	22	2,919	3,794	109	20,537	4	1,828			47	67,021				
Spain	92	14,148	21,794	168	49,795	3	4,195	7,214	623	1,891	511				
Straits Settlements	362	102,318	61,965	1,440	274,701	26	16,148			321	297,588				
Switzerland	7	10,785	8,017	12	4,797	1	144	3,810	587	2,405		8	5,904		
United Kingdom								4,474	404	3,272	490,086	6	13,328	2	12,650
United States	27	36,992	5,877	33	39,344	3	1,040	157	6		426,331				
Other Countries	319	80,137	155,989	1,061	213,520	238	113,350	8,774	1,183	5,347	58,500	8	12,141	18	174,435
Total	14,374	£3,045,168	£1,682,880	13,321	£2,924,144	1,068	£528,633	51,099	4,781	29,189	$5,485,386	116	$158,318	84	$302,842

Imports of Motor Cars Into U. S.

	No.	Value
1917	105	$ 188,280
1918	105	75,136
1919	117	123,025
1920	926	1,026,518
1921	522	876,163
1922	483	802,888
1923	853	884,125
1924	604	841,524
1925	672	1,064,975
1926	813	1,352,984
Total	5,200	$7,235,618

DURING the calendar year 1925 Australia imported from the United States and Canada, 71,266 chassis valued at £8,268,100 and 8691 complete vehicles valued at £54,180. From Great Britain there were imported 10,484 chassis valued at £2,135,186 and 3761 complete vehicles valued at £241,733. From Continental Europe there were imported 4030 chassis valued at £704,368 and 765 complete vehicles valued at £54,180. Among the Continental exporting countries, Italy took first rank and France second. The constantly growing popularization of the British light car is proving serious competition to French makers and the intensive propaganda to "Buy British makes" is making itself felt.

During the fiscal year which ended June 30, 1925, there were imported tire covers to the value of £1,440,270 and inner tubes to the value of £204,531.

1926 Canadian Vehicle Exports

COUNTRIES	PASSENGER		TRUCKS	
	No.	Value	No.	Value
Aden	44	$14,108	33	$10,571
Argentina	3,539	2,043,449		
Australia	11,596	3,542,994	4,936	1,481,520
Belgium	154	129,345		
Brazil	1,080	829,591		
British Africa	3,618	1,454,519	2,216	727,029
British Guiana	156	71,431	28	8,635
British India	6,922	2,961,181	4,136	1,458,803
British West Indies, Other	56	30,662	21	6,949
Canary Islands	57	35,176	82	31,751
Ceylon	708	349,312	337	108,341
Chile	184	114,732	71	29,708
China	650	479,415	68	29,509
Colombia	349	293,310	216	92,449
Cuba	95	105,465		
Denmark	206	215,231		
Dutch East Indies	4,697	2,031,470	2,014	679,639
Dutch West Indies	35	17,378	17	7,203
Egypt	410	261,716	190	78,174
Finland	90	70,066		
France	66	55,405		
Germany	184	230,966		
Haiti	70	34,767	52	21,453
Jamaica	188	94,867	63	25,935
Japan	908	615,314	156	67,703
Mexico	99	80,599		
Netherlands	114	83,608		
Newfoundland	71	28,478	27	8,807
New Zealand	6,599	3,194,535	1,370	481,352
Norway	175	116,057		
Portuguese Africa	65	26,675	88	38,161
Rumania	540	277,718	132	55,761
Siam	103	39,259	528	183,494
Spain	95	129,644	20	9,345
Straits Settlements	3,498	1,343,514	1,313	466,996
Sweden	246	177,666		
Trinidad	197	101,443	91	32,490
United Kingdom	3,214	2,631,356	1,013	197,108
United States	173	62,279	8	7,786
Uruguay	534	332,859	50	23,905
Venezuela	473	230,710	775	319,260
Yugoslavia	142	78,389	4	1,756
Other Countries	1,228	763,000	641	265,649
Total	53,628	$25,779,659	20,696	$6,957,242

AUTOMOTIVE NEWS SECTION INDUSTRIES

Philadelphia, Pennsylvania

Saturday, February 19, 1927

Early Year Developments Improve Business Outlook

PHILADELPHIA, Feb. 19—Some further increases in daily rates of motor car production have been made recently, although the industry as a whole is still slightly under the level of the same period a year ago. Sentiment at the factories has improved materially since the first of the year and the outlook is regarded with much more confidence. Weather has been fairly conducive to early season sales.

The worst obstacle of the industry just now does not lie in any unwillingness or inability on the part of the public to buy cars, but in the rather heavy state of used car stocks in the hands of dealers. This has forced them, in self-protection, to reduce trade-in allowances and many a prospect has to be turned away because he cannot get his price on the old car. Used car stocks should be reduced as the season progresses. In the long run, however, a permanently lower scale of used car valuations would be regarded as a strengthening factor.

Sales in the industrial districts are generally better than in the farm districts. The southern market is affected by this condition, but the reaction to the slump in cotton has been not nearly as serious as was expected last year. Florida business is well below the mark set a year ago.

Truck and bus business, both in the domestic and foreign markets, has got off to a good start this year. Truck sales in the farming regions have always been relatively small.

Studebaker Lowers Prices on 7 Models

SOUTH BEND, IND., Feb. 16—Price reductions ranging up to $200 were announced today by the Studebaker Corp. in celebration of its seventy-fifth birthday.

The models affected and the old and new prices in the United States are:

	Old Price	New Price
Standard Six		
Sport Roadster	$1250	$1195
Custom Victoria	1335	1325
Custom Sedan	1385	1335
Big Six		
Custom Victoria	$1735	$1645
Custom Brougham ...	1785	1585
Sport Phaeton	1610	1445
Sport Roadster	1680	1495

Dodge Changes Clutch

DETROIT, Feb. 17—Dodge Brothers, Inc., has incorporated in its car, a new single plate clutch, a new type muffler and improvements in the universal joints, cars of the new type now being in dealer's hands. The muffler change is from baffle type to concentric tube.

Willys Orders Now Exceed $30,000,000

TOLEDO, Feb. 14—Orders for Willys-Overland products from dealers now exceed $30,000,000, according to John N. Willys, president, these orders being taken at 16 dealer conventions in all parts of the country. As a result, February production will show an increase of 50 per cent over February, 1926, and March business indicates a gain of 80 per cent, Mr. Willys said.

Retail sales of Willys-Overland cars have increased from 10 to 140 per cent in cities in which automobile shows have been held, Mr. Willys said.

All dealers will cooperate with the factory in an advance spring showing of Willys-Overland cars to be held nationally in the week of Feb. 21.

Piston Maker to Relieve Jobber of Obsolete Types

CINCINNATI, Feb. 17—Aluminum Industries, Inc., successor to the Kant-Skore Piston Co., has adopted an obsolescence policy under which it will designate pistons which it regards as obsolete and will issue merchandise credits to jobbers based on current list prices. Obsolescence will be determined by the company by its sale of each particular piston type.

The policy obtains only on semi-finished pistons in good saleable condition, which are returned by the jobber, freight prepaid, following notice from the company of the types considered obsolete and the disposition to be made. Pistons withdrawn from jobber stocks will be carried by the company until stocks are depleted.

Budd Cites New Orders

PHILADELPHIA, Feb. 17—Shipments in 1926 by the Edward G. Budd Mfg. Co., totaled $41,000,000, an increase of 70 per cent over 1925, said E. G. Budd, president, reviewing the year's activities at the annual meeting. New contracts were made during the year, he said, with Reo, Packard and Studebaker, and former contracts with Dodge Brothers, Ford, Chandler and Jordan continued. He cited a contract with Morris Cowley Co. to furnish bodies for 15 years on a cost plus basis as an instance of the company's foreign expansion. All retiring directors were reelected.

British Not Seeking Rubber Monopoly

NEW YORK, Feb. 16—"Rubber restriction was undertaken by Great Britain in the face of the knowledge that it would bring a decline in the relative importance of the country as a producer," said J. Joyce Broderick, commercial counsellor of the British Embassy, at the dinner held by the Rubber Exchange here this week.

A monopoly was not desired nor has it been interested in establishing one at any time, Mr. Broderick said. The restrictions were simply a logical move to save producers from too harsh application of the law of supply and demand, he said. The British control office, he said, is making every effort to understand the viewpoint of the consumer.

Francis R. Henderson, presiding at the dinner, said all interests in the rubber industry were cooperating for the first time to establish prices within reasonable bounds of fluctuation.

W. H. Roberts Dies

DETROIT, Feb. 16—Funeral services for W. H. Roberts, 48 years old, president of Roberts Brass Mfg. Co., and Detroit Stamping Co., who died Monday of a sudden heart attack, were held today.

Besides heading the brass company, which was founded by his father, and the stamping company, Mr. Roberts was also interested in other manufacturing enterprises and was widely known in the industry.

Tax Refund Seen Doomed

WASHINGTON, Feb. 16—The $29,000,000 tax refund of illegally collected excise taxes from the automobile and accessories manufacturers, and ordered by the courts to be repaid to such manufacturers, because of the illegality of the collection, now appears to be doomed, in that it will be caught in the annual legislative jam, incident to the close of the 69th Congress on March 4.

Chevrolet on 4000 Daily

DETROIT, Feb. 16—Chevrolet's engine plant at Flint is now producing 4000 engines a day, the largest in the history of the company. The capacity of the engine plant was recently increased from 3000 daily.

G.M.C. Earnings Gain $48,506,216

Sales Increase $323,560,746—Corporation Adds Working Capital by Stock Sale

NEW YORK, Feb. 16—An offering of $25,000,000 of 7 per cent cumulative preferred stock of General Motors Corp. by J. P. Morgan & Co. at $120 a share was quickly subscribed today. The purpose of the offering was to provide additional working capital and the proceeds will be immediately added to the cash account of the corporation.

It was pointed out that the corporation, in 1926, authorized $108,000,000 for expansion and improvement and virtually all of this has been expended. The new shares, therefore, represent a partial capitalization of the extensions made by the company.

The offering was coincident with issuance of the preliminary earnings statement for 1926, showing a record net of $21.80 a share earned on the common stock, as well as a record in sales not only for the company as a whole but for each of its car manufacturing divisions.

Retail Sales Total 1,215,826

Retail sales to consumers in the United States and overseas totaled 1,215,826 cars, exceeding the previous high record year, 1925, by 388,770 cars, or 47 per cent. Sales, excluding intercompany items, were $1,058,153,338, an increase of $323,560,746 or 44 per cent over the previous year.

Net earnings for 1926 were $186,231,182, including $10,146,038 as the company's proportion on earnings of subsidiaries accruing in excess of dividends received. After allowing for dividends on the senior securities, there remained $178,588,895 earned on the common stock against $116,016,277, or $14 a share on the common in 1925, figured on the same share basis.

Excluding equities, earnings in 1926 exceeded the previous year by $48,506,216, or 45.6 per cent, and also exceeded the best year prior to 1925 by $92,923,447, or 149.7 per cent. This comparison does not include the extra earnings in 1926 as a result of the consolidation with the Fisher Body Corp.

Increase Surplus $64,508,864

After the payment of all dividends the corporation added to the surplus or reinvested in its business a total of $64,508,864. This compares with $36,909,544 in 1925.

Cash in banks and marketable securities at the close of the year amounted to $135,398,386, compared with $145,142,088 at the close of 1925. Sight drafts were $12,073,434; inventory, $156,203,663; total current assets, $336,338,213, and total current liabilities, $144,332,596. This leaves an excess of current assets over current liabilities of $192,005,617 and compares with $181,826,881 as of December 31, 1925, an increase of $10,178,736. The total of capital stock and surplus, $634,257,318, on Dec. 31, increased $147,240,895, of which $64,508,864 is accounted for by earnings reinvested in the business and the balance of $82,732,031 represents increased capital and surplus incidental to the acquisition of the minority interest in Fisher Body on June 30, 1926. Total assets of the corporation at Dec. 31 amounted to $920,894,105, compared with $703,786,664 at the end of 1925.

Moock Named Head of A.E.A. Marketing

CHICAGO, Feb. 15—The automotive Equipment Association today announced the appointment of Harry G. Moock to head the market development department, the creation of which was authorized at the last convention of the association. At that time members voted to assess themselves $750,000 over a period of three years to carry on the market development work.

Mr. Moock was formerly with the California Automotive Trade Association and later was general manager of the National Automobile Dealers Association. Since 1922 he has been sales promotion manager of the Hudson Motor Car Co. Mr. Moock will take up his new duties at once and will be expected to prepare a comprehensive plan for the market development work which will be submitted to the board of directors of the A. E. A. in April.

Ford Registrations Show 17,798 Drop in Michigan

DETROIT, Feb. 16—Registrations of new cars in Michigan in 1926 totaled 195,672 against 195,277 in 1925, a gain of 395 in a year. The gain was scored in the face of a decrease in Ford registrations of 17,798, a loss which was made up to a large extent by increases in registrations of medium priced cars. Registrations of the Pontiac, sold in 1926 for the first time, were 6577. Chevrolet registrations increased from 22,405 in 1925 to 27,040. Buick sales increased from 13,641 to 18,681.

Hupp Profits Increase

NEW YORK, Feb. 17—Hupp Motor Car Corp., for the 1926 calendar year, reports net profit of $3,507,628 after depreciation, Federal taxes, new model expense, etc., equivalent to $3.48 a share on 1,005,189 shares of $10 par common stock. This compares with $2,919,464 or $3.19 a share on 913,809 shares in 1925. Sales in 1926 were $50,342,606 against $43,847,198 in 1925.

Sheldon Receivers Named

SCRANTON, Feb. 16 — Receivers have been appointed for the Sheldon Axle & Spring Co. of Wilkes-Barre, following filing of a bankruptcy petition by creditors in Federal Court.

Business in Brief

Written exclusively for* AUTOMOTIVE INDUSTRIES *by the Guaranty Trust Co., second largest bank in America.

NEW YORK, Feb. 17—Some increases in wholesale trade volumes were reported last week, while retail business continued relatively inactive. The cotton textile trade continued to show improvement. Money rates declined further, while commodity prices were firm and stock quotations displayed remarkable strength in the face of sharp fluctuations in certain minor railway shares.

FREIGHT CAR LOADINGS

Large coal shipments continued to swell the totals of railway freight car loadings, the figure for the week ended Jan. 29 being 950,969 cars, which compares with 942,587 cars in the preceding week and 925,696 cars in the same period last year.

BUILDING CONTRACTS

Construction contracts awarded last month in 37 states, according to the F. W. Dodge Corp., had a total value of $384,455,400, which is 16 per cent smaller than the value of contracts in January, 1926.

BANK DEBITS

Bank debits to individual accounts reported to the Federal Reserve Board for the week ended Feb. 9 were 11.1 per cent below the total for the preceding week but 3 per cent above that for the corresponding period last year.

FISHER'S INDEX

Fisher's index of wholesale commodity prices stood at 144.4 last week, as against 144 a week earlier and 145.1 four weeks earlier.

FEDERAL RESERVE STATEMENT

Bills and securities held by the Federal Reserve banks declined $40,000,000 during the week ended Feb. 9, with decreases of $14,200,000 in discounts and $26,600,000 in open market purchases and a gain of $800,000 in holdings of Government securities. Note circulation increased $7,600,000 and reserves $19,600,000, while deposits declined $31,200,000. The reserve ratio rose from 78.5 to 79.5 per cent.

During the same period, loans of reporting member banks declined $80,000,000, the principal change being a decrease of $84,000,000 in loans secured by stocks and bonds. Investments increased $10,000,000 and borrowings from the Federal Reserve banks $1,000,000, while net demand deposits declined $115,000,000. Loans to brokers and dealers secured by stocks and bonds made by reporting member banks in New York City declined $10,000,000.

The call loan rate continued unchanged at 4 per cent last week. Time loan rates were slightly lower at 4¼ to 4½ per cent, while commercial paper rates were without change at 3¾ to 4¼ per cent.

Propose New Bill to Kill Bay State Insurance Act

Owner Organization Rallies Support for Creation of State Liability Fund—Cites Unfairness of Fees Under Present Measure

BOSTON, Feb. 15—Serious effort will be made in Massachusetts to remove the present compulsory insurance law from the statutes and replace it with an act empowering the state to create a fund from which to pay for any civil liability incurred by any motor vehicle operator in the operation of the vehicle. The owner would be protected in any part of the United States or Canada during the year of registration.

The fund would be created by assessing each motor vehicle owner $10, the assessment to be the same without regard to the type of vehicle, except that taxicabs and buses would pay $50 each. The assessment would be uniform throughout the state, and no motor vehicle would be licensed to operate unless the insurance fee should have been paid.

Administration of the fund would be under control of the state registrar of motor vehicles, costs and expenses to be paid from the fund. The registrar would have the authority to increase or reduce the amount of the fee so that insurance under the law would be furnished at cost. Limits are fixed as to the extent of liability to any one person in any one accident, and each payment of liability would be preceded by a formal action at law. The motor vehicle owner is charged with defense of the action and the plaintiff is charged with paying double the cost of court to the defendant should his action fail. The law would take effect as of Jan. 1, 1928, and would specifically repeal the compulsory insurance law.

Passage of the law will be urged by the National Association for State Auto Insurance, an organization recently formed in Boston to unite all car owners behind the project. The association cites that a state fund of more than $8,000,000 annually would be created under the law, more than enough to satisfy all judgments and leave a surplus.

The present law was asserted to be unfair, unreasonable and discriminatory in a statement by J. J. Murphy, speaking on behalf of the proposed law before the joint judiciary committee of the Massachusetts Legislature. He emphasized his statement by singling out provisions of the law such as where owners of larger cars with modern brake equipment and improved engines are assessed more than owners of cars with less efficient brakes and engines. Accident statistics were cited by Mr. Murphy to show that higher fees charged in certain localities or against specified types of vehicles were unwarranted.

Extreme rates on trucks and buses he charged as susceptible to question as to whether they had not been established to lessen the ability of these carriers to compete with railroads.

The initiation of this action in Massachusetts gives force to the appeal of the National Automobile Chamber of Commerce and other automotive bodies, that other states refrain from adoption of compulsory insurance laws until the success of the law in Massachusetts has been demonstrated. In 21 other states such action is now pending, the N. A. C. C. points out, several of these seeking this law apparently on the theory that they should have it because Massachusetts has.

OHIO TURNS DOWN INSURANCE BILL

WASHINGTON, Feb. 14—Commenting on the action of the Ohio Legislature in voting down in committee the proposal for compulsory automobile insurance, the national headquarters of the American Automobile Association this week declared that the outcome in Ohio shows a national trend against compulsory insurance of this character in its radical and blanket forms.

Reports from A. A. A. clubs in states where compulsory insurance is a legislative issue, the association stated, indicate that most of the legislatures are expected to vote down compulsory insurance or seek postponement of the issue.

Underwriters Fix Higher Truck Rates

NEW YORK, Feb. 14—New motor vehicle liability, property damage and collision rates, made effective today by the National Bureau of Casualty & Surety Underwriters, contains some advances, particularly as affecting commercial cars.

The commercial car rates have been completely revised, showing an increase in both public liability and property damage, the increase being greatest for property damage on medium and heavy trucks in the higher rated areas.

The 1926 collision rates are continued in 1927, except that those applying to private passenger cars in some of the lower rated territories have been increased. The collision rates for all commercial cars which are included in the property damage rate classes 1, 2 and 3 now carry the 100 per cent increase over the regular commercial collision rates.

There are some changes in rules affecting the application of the new rates. The $50 deductible property damage coverage heretofore available for commercial cars only now has been made available for public automobiles.

The definition of collision coverage has been amended by limiting the liability of the company for actual loss or damage to the cash value of the automobile at the time of the accident.

N.A.C.C. Urges Opposition to Compulsory Insurance

NEW YORK, Feb. 14.—The National Automobile Chamber of Commerce has issued a bulletin urging the trade and the public to oppose the compulsory automobile liability insurance acts which have been introduced in 21 state Legislatures now in session.

Among the reasons advanced against compulsory insurance by the chamber are:

1. Compulsory insurance creates an accident hazard among the irresponsible because it would remove the present fear of financial loss which tends to hold the reckless in check.
2. No evidence exists to show the total amount of uncompensated losses due to motor vehicle accidents. The great majority are being penalized to carry the burden of cases, the number and extent of which are not known.
3. A cost of $30 per car to handle the burden which will be the charge if the plan is fully operative, is probably excessive and should not be imposed until there are more facts.
4. It adds an extra burden on transportation.
5. It gives undue power to bureaucracy which is justifiable only in case of criminal offense.
6. It is an added cost on rural transportation.

Four Planes in New Line

CLEVELAND, Feb. 15—Four cabin type airplanes will begin schedule service between Cleveland, Cincinnati and Louisville, July 1, according to Albert B. Norwalk, vice-president of the Kaess Aircraft Engineering Corp. of New York who was in the city today.

The Kaess air line has the Cleveland-Louisville air mail contract and will also carry passengers and express. Mr. Norwalk says the ships will carry six passengers and make the trip to Louisville in four hours. He also says the air line will eventually be extended to New Orleans.

Boeing Buys Wasp Engines

NEW YORK, Feb. 14—The Boeing Airplane Co., which recently was awarded the contract for the Chicago-San Francisco section of the new transcontinental air mail route, has purchased 25 400-hp. Wasp engines from the Pratt & Whitney Aircraft Co. for $250,000. The Boeing company has headquarters in Seattle and Pratt & Whitney in New York.

Maker Held Liable for Vehicle Defects

Court Rules Automobile in Class With Products Inherently Dangerous

WASHINGTON, Feb. 15.—Manufacturers of automobiles with defective brakes are held liable for damages for negligence under the decision of the Federal court for the northern district of Ohio, according to a report received by the U. S. Department of Justice.

The decision was rendered against a leading truck manufacturer in a case brought by Fay L. Kramer, driver of a truck made by this maker, who was injured when the brakes slipped.

He brought suit against the manufacturers, alleging that the producers were negligent in making and selling a truck equipped with defective brakes. The court's decision settles the long discussed question whether the original manufacturer of a motor vehicle is liable to a remote user, sustaining in the purchase no contractual relation to the maker, in the absence of willful negligence or fraudulent representations.

In his opinion Judge Westenhaver declared: "If the maker of an automobile or other product places it on the market to be used without inspection by purchasers, when it is reasonably certain that such use will endanger life and limb if the article is negligently made, then it is to be regarded as a thing of danger, for which the maker's liability is not confined to the immediate purchaser and is not absolved from the duty of due care in the making and selling because it bought its parts of a reputable maker.

"An automobile negligently constructed falls within the same class as poisons, explosives and noxious foods which are by their nature inherently dangerous."

Manufacturer Approval Sought on Standardizing

WASHINGTON, Feb. 16—Plans for a survey of the automotive industry to determine the sentiment for adherence to standard sizes of spark plugs, brake linings, piston and piston ring oversizes and roller bearings have been completed by the U. S. Department of Commerce.

Manufacturers, distributors and consumers will be asked to indicate their opinions to the National Committee on Metals Utilization, of the Department of Commerce. The inquiry is being made at the request of a conference of all interests held in Detroit.

Standards to be submitted for adoption were approved by the Detroit conference. Each recommendation must be accepted by producers, distributors and consumers representing 80 per cent of the annual volume of the industry.

RECREATION COSTS EXEMPT FROM TAX

WASHINGTON, Feb. 17.—Monies expended by a corporation, manufacturer or private concern for recreation purposes for its employees are proper deductions in computing the annual taxes due the Federal government each year, according to a tax decision announced here this week by the Board of Tax Appeals. The board's decision sustains a contention of an El Paso automobile dealer claiming its rights to tax exemptions for dances and picnic expenditures involving the sums of $115, $171 and $115 so spent in 1919, 1920 and 1921 respectively.

To Prepare Tax Revision During Congress Recess

WASHINGTON, Feb. 16.—By a unanimous agreement the House Ways and Means Committee this week decided to begin drafting a new tax reduction bill, which in all probability will carry with it elimination of the remaining 3 per cent excise tax on passenger cars, during the recess of Congress. Chairman Green was instructed to offer an amendment to the second deficiency bill when it comes before the House later this week, to provide funds for the committee to hold hearings.

Actual work on the measure probably will start late in September, Mr. Green said, and it is the committee's plan to have the bill ready to present to the House when Congress convenes in December.

Labor Survey Indicates Improvement in February

WASHINGTON, Feb. 16—An analysis of employment in the automobile, accessories and tire manufacturing industries during January, just announced by the United States employment service of the Department of Labor, shows an increase in some plants but the major number, however, are still operating on part time "with indications that further improvement in the industry during February will be made." In the rubber industry, however, increased activity is not anticipated until the middle or last of March.

Kant-Skore Changes Name

DETROIT, Feb. 14—The Kant-Skore Piston Co. has changed its name to Aluminum Industries, Inc., due to its diversified operations in the aluminum industry.

Peerless Sells Branch

PHILADELPHIA, Feb. 14—Petersen Motors, Inc., has taken over the Philadelphia branch of the Peerless Motor Car Co. and aims to develop a dealer organization of 125 in this territory.

8 States to Act on Car Title Law

Support of Legislation is Urged by N.A.F.C. to Reduce Theft Insurance

CHICAGO, Feb. 14.—According to a bulletin issued by the National Association of Finance Companies, automobile certificate of title laws have been introduced in the Legislatures of Nebraska, Texas, Washington, Colorado, Connecticut, North Dakota, Oregon and West Virginia.

The bulletin points out the following benefits of such laws:

Reduction of automobile thefts ranging from 30 per cent to over 50 per cent; recovery of stolen cars running as high as 96 per cent (less than 30 per cent of insured cars are recovered in the absence of certificate of title laws); material reduction in insurance rates averaging 10 per cent from final theft rates; prevention of fraudulent sales by helping stop the practice of selling encumbered cars as free from liens; prevention of misrepresentation as to age of car, etc.

The National Association of Finance Companies calls attention to the certificate of title act embodied in the uniform motor vehicle code drawn up by the National Conference on Street Highway Safety and urges all state legislators to support such an act.

Confiscation Insurance is Sustained by Court

WASHINGTON, Feb. 10—The legality of insurance by a dealer, banker, or acceptance corporation, to protect their interests, as they might appear, covering the loss or confiscation by the government of an automobile used in the liquor traffic was sustained in the Federal Courts of Idaho, this week, according to decision reported to the U. S. Department of Justice.

Two cases were decided, one in which an acceptance company handling automobile paper, and the other a banker had insured the automobiles against loss if used by the purchasers contrary to law. The cars were seized and the Federal court sustained the right of the insured to collect as their interests might appear, from the insurance companies.

It was argued by the government that such insurance would be contrary to public policy as it aided law violators, the court holding, however, that it was not.

N.S.P.A. Launches Paper

DETROIT, Feb. 12—"The N. S. P. A. News" is the name of a new monthly publication which is being introduced by the National Standard Parts Association and which made its initial appearance in February. The paper will present news of interest to members.

Men of the Industry and What They Are Doing

Cord Would Extend Speed on Designated Highways

E. L. Cord, president of Auburn Automobile Co., has indorsed a nation-wide movement for more liberal speed laws, his action being taken in connection with an effort now being made to amend the driving laws of Indiana to permit of a speed of 35 to 40 miles an hour.

Speed of motor cars must be respected, he said. People should be educated to motor rights on specified streets and roads. The necessity of fast transportation on railroads is known and people conduct themselves accordingly. This same conduct should apply to the rights of the motor car.

Reynolds Joins Indiana

H. B. Reynolds, vice-president and general manager of the Selden Sales & Service Co., of New York, Inc., has resigned to become special eastern representative of Indiana Truck Corp. Mr. Reynolds will establish headquarters at 522 Fifth Ave., New York.

C. W. Lighthall Promoted

C. W. Lighthall has been appointed general manager of the Hoover Steel Ball Co., succeeding H. D. Runciman, resigned. Mr. Lighthall has been factory manager of the company since its formation and is also a member of the board of directors.

Wickes Succeeds Goldie

H. Randall Wickes has been appointed general manager of the Ruggles Motor Truck Co., succeeding R. J. Goldie, resigned. Mr. Wickes has been vice-president of the company for some time and is also vice-president and general manager of Wickes Brothers and the Wickes Boiler Works.

S. L. George on Nassau Trip

S. Lee George, president of the G-H Mfg. Co., Inc., is leaving this week on a vacation trip to Nassau with H. G. Harwood, chairman of the board. This is the first vacation Mr. George has enjoyed since he organized the G-H company five years ago.

Velie Names Representatives

G. B. Field has been appointed Kansas City district representative by Velie Motors Corp. R. R. Robertson has also been added to the company's sales staff, having charge of the expansion program in the Philadelphia territory.

Autocar Names Directors

C. S. Newall and R. P. Page, Jr., have been elected to the board of directors of the Autocar Co., filling vacancies caused by the death in January of L. L. Woodward, president, and the retirement of E. A. Fitts.

STUDEBAKER HONORS FIFTY-YEAR DEALER

Fifty years of handling Studebaker products on the part of Samuel J. Crawford of Warsaw, N. Y., was rewarded by the Studebaker Corp. with the presentation of a white gold watch to Mr. Crawford on the golden anniversary of his service. Accompanying the watch was a telegram of congratulation from A. R. Erskine, president.

Mr. Crawford is the only man in the organization of 5000 dealers who has consistently handled Studebaker products for 50 years.

Duggan Visits Jobbers

Tom O. Duggan of Los Angeles, who was recently appointed merchandising service director of the National Standard Parts Association, has assumed his new position. After visiting jobbers in Los Angeles, San Francisco, Portland, Seattle, he will swing eastward to Denver, Kansas City, St. Louis, Chicago and Detroit. Before taking the position he was sales manager of the Los Angeles parts division of Chanslor & Lyon Co., with whom he had been associated for 13 years. During the earlier years of the industry he served both as a driver and mechanic with the Marmon and Stutz racing teams.

Cooney Succeeds Merchant

J. A. Merchant, secretary of the Graham Brothers motor truck plant at Evansville, Ind., and identified with the local industry for the past nine years, has retired. He is succeeded by A. D. Cooney, formerly at the Dodge Brothers plant, Detroit, who becomes general manager of the local plant. Mr. Merchant has been connected with the local industry since its foundation by the Graham Brothers. He announced no plans for the immediate future.

Gordon Takes Dealership

John H. Gordon, a former director of distribution and districts for Dodge Bros., Inc., has taken over the retail division of the Willys-Overland branch organization in Denver. Mr. Gordon has been in the industry 16 years, having, in addition to his Dodge connection, worked for the Hibbard Engineering Co. and King Motor Car Co.

Kelly Elects Morgan

Directors of Kelly-Springfield Truck & Bus Corp. at a meeting Saturday elected W. F. Morgan, New York, treasurer, and Elmer Wolf, assistant treasurer. Mr. Morgan represents bank interests. H. W. Torney is president of the company. Plans are being laid for heavy production.

White to Award Honors to High-Record Salesmen

Eighty-two star salesmen of the White Co. have been called to a meeting at the factory, Feb. 28 to March 1, when honors will be awarded them. All are members of the White Club of 1926 which is a month to month honor roll of truck and bus salesmen who maintain a consistently high record for sales during the year.

The salesmen will be guests of Walter C. White, president of the company, and after a trip through the factory will be entertained at the second anniversary dinner. The club was inaugurated two years ago and 35 cities in all parts of the country are represented. Thirty-eight of the present list of honor men were also on the roll last year.

Lee Heads Show Managers

The annual meeting of the National Association of Automobile Show & Association Managers was held at the Drake Hotel in Chicago Feb. 3. Robert E. Lee, of St. Louis, president of the organization, and the rest of the old officers, were reelected, and it was decided to hold the 1927 before-shows convention of the association at the Drake Hotel, Chicago, July 26 and 27.

Buick Sales Chiefs Meet

District sales managers of Buick Motor Co. met at the factory following the national shows to exchange views on the general automobile situation for the coming year. Those attending were B. H. King, H. P. Carter, J. A. Hart, J. F. Martin, J. D. Coss, A. C. Bennett and P. S. Steenstrup. General opinion favored the likelihood of business comparing favorably with business of the past year.

Close and Stickle Promoted

Burt G. Close has been elected vice-president in charge of sales and merchandising of the King Mfg. Corp., and H. W. Stickle has been elected vice-president in charge of production.

McConnell Joins National Acme

Walter J. McConnell of the Willys-Morrow Co., Elmira, has resigned to become efficiency engineer in the plant of the National Acme Mfg. Co.

Raskob on Bankers Trust Board

John J. Raskob, vice-president and director of General Motors Corp., has been elected a director of the Bankers Trust Co., of New York.

A.B.C. Officers Named

Philip L. Thomson has been elected president of the Audit Bureau of Circulations, and O. C. Harn has been elected managing director.

Steel Mills Raise Rate of Operations

General Market Conditions Seen Steadier Though Competition Continues

NEW YORK, Feb. 17—So gratifying has been the volume of orders received by steel mills from automotive consumers during the first half of February that nearly all the Mahoning Valley sheet mills are in operation at an average of 80 per cent of capacity, while in the Pittsburgh district an average of 70 per cent of capacity is being approached. The 4.15 cent, Pittsburgh, base price on full-finished automobile sheets appears to be uniformly observed, and this description of finished steel constitutes the firmest item in the market's price structure. The leading motor car manufacturing interest is reported to be sounding the market with reference to its second quarter needs.

The black sheet market has steadied somewhat, but is still under the influence of intensive competition on the part of mills eager to build up more of a backlog than they have now. Producers of sheet bars are seeking to stiffen the backbone of non-integrated sheet-rollers by refusing to make concessions on semi-finished material. Billet manufacturers are adopting the same means to bring pressure on strip mills, but prices for both hot and cold-rolled strip steel continue to show wide variance, chiefly because improvements in equipment have given some mills a decided advantage in the matter of costs over their competitors.

Cold-finished steel bars are in good demand and, while some large automotive consumers are protected by contracts at $1 or $2 under the regular market price of 2.40 cents, Pittsburgh, the latter quotation is generally adhered to. Marked improvement is noted in the demand from forged parts makers for S. A. E. alloy steels 2300, 3100, and 3200. A new price list for bolts and nuts, with a uniform discount of 70 per cent, is scheduled to be announced April 1.

Summing up the situation, it may be said that automotive demand for steel products has gained considerable headway, but that consumers are well able to obtain sufficiently prompt shipments at relatively short notice, so that purchasing agents give but little thought to anticipating their wants beyond current requirements.

Pig Iron—Middle West automotive foundries are reported to have ordered shipment of fair-sized tonnages. Large foundry extension by leading motor car manufacturers will call for a doubling of their pig iron purchases, but so far no steps have been taken to cover these additional requirements for the current year. Market opinion is mixed.

Aluminum—Technical interest in aluminum alloys is growing by leaps and bounds, so much so that aluminum-bronze manufacturers have organized a special research institute. Aluminum-silicon alloys are also coming in for more and more attention, especially for airplane engine parts. These developments reflect the more intensive efforts to broaden the outlet for aluminum. While prospective production of the metal bids fair to break all records, the past history of aluminum has shown that, just so soon as greater production is in sight, new outlets are created.

Copper—The feeling in the market is that the worst is over. There is talk of curtailing production, but as the large producers were responsible for much of the recent slash in prices, unanimity is hardly to be looked for in any direction. Automotve demand for brass is slightly better.

Tin—Bull speculators in London are again driving prices higher.

Lead—Reduction in output by the leading interest is forecast with others likely to follow suit. Storage battery makers are holding aloof from the market.

Students Attend Meeting of Metropolitan Section

NEW YORK, Feb. 17—More than 200 engineering students from universities and colleges in and around New York attended the meeting of the Metropolitan Section of the Society of Automotive Engineers, Wednesday. Describing the possibilities for college trained men in the automotive field, David Beecroft, vice-president of Chilton Class Journal Co. and a former president of the S. A. E., told of the magnitude of the industry, analyzing it from the standpoint of manufacturing, selling, maintenance and traffic.

John H. Hunt, president of the society, told of the work done by engineers of the industry; John Younger, of Ohio State University, described the personal element in engineering success, and R. E. Plimpton, of Bus Transportation, told of bus conditions.

Parts Exports Increase

WASHINGTON, Feb. 16—The value of all automobile replacement parts, accessories and service appliances exported from the United States during 1926 amounted to $52,205,366, an increase of $8,948,348, or 21 per cent over 1925, according to a report issued this week by the U. S. Department of Commerce. The gradual increase of our foreign trade in automobiles during the past few years, the report shows, is reflected in the sale of repair parts and accessories, the 1926 export total of these products being second only to the banner year of 1923, when shipments reached a valuation of $55,758,743.

British Profits Lower

LONDON, Feb. 9 (*by mail*)—The net profit for the year ended Sept. 30, 1926, of S. T. D. Motors (Sunbeam-Talbot-Darracq) was £143,852, against £151,090 for the preceding year.

Rolls-Royce announces a sharp decline in net profits. These amounted to £100,606 for the year ended last October, against £165,722 in 1925.

Financial Notes

Goodyear Tire & Rubber Co. and subsidiaries for year ended Dec. 31, 1926, show net profit of $8,799,138 after depreciation, Federal taxes, interest, preferred dividends of subsidiaries, etc., equivalent after allowing for dividend requirements on the 8 per cent prior preference stock to $11.75 a share earned on outstanding 650,796 shares of 7 per cent cumulative preferred stock, on which accumulated dividends amount to 25 per cent. Allowing for only the regular annual 7 per cent dividend requirements on the preferred stock, balance is equal to $3.78 a share earned on outstanding 830,731 no par shares of common stock. Comparison with other years is not available as this is the first consolidated statement, including subsidiaries, issued by the company.

General Motors Acceptance Corp. balance sheet as of Dec. 31, 1926, shows net profit for the year of $5,193,202, out of which dividends were paid during the year of $3,390,000. Cash totaled $37,930,068 and notes and bills receivable $232,125,079, of which $13,428,857 were of foreign origin. Notes and bills payable aggregated $165,545,621 and capital and surplus and undivided profits were $36,428,200.

E. I. duPont de Nemours & Co. declared a quarterly dividend of $2 on its common, putting the stock on an $8 annual basis, in addition to the regular quarterly 1½ per cent on its debenture stock. Common dividend is payable March 15 to stock of record March 1. Debenture dividend is payable April 25 to stock of record April 9.

Willys-Overland Crossley, Ltd., shows a net profit in 1926 of £62,644 against a deficit of £188,076 in 1925. Payment of the 6 per cent preferred dividend absorbed £6000 and the balance was carried to surplus.

Gardner Motor Co. preliminary statement for year ending Dec. 31, 1926, shows net earnings of $126,286 after depreciation but before taxes and charges.

Borg & Beck Co. reports net earnings after charges in 1926 were $907,222, equal to $7.26 a share on 125,000 shares of $10 par stock.

Motor Wheel Corp. has declared the regular quarterly dividend of 50 cents on common, payable March 21 to stock of record March 10.

Velie Shipments Gain 49%

MOLINE, Feb. 14—Velie Motors Corp. reports shipments in the three months of November, December and January exceeding by 49 per cent, shipments in the same three months a year ago. The company reports the signing of important new dealer connections at the national shows and look for increased business to continue.

French Mergers Continue

LONDON, Feb. 5 (*by mail*)—Three French firms, Chenard and Walcker, Delahaye and Unic, are said to have merged interests. Other French firms, it is believed, are contemplating a similar step.

Germany to Accept Cars as Necessity

New Transportation Chief Says Future of Transport Rests on Roads

NEW YORK, Feb. 14—The future of German transportation rests upon her automobile roads, Dr. Koch, the new minister of transportation, is reported here as declaring, his statement also asserting that railroads and airplane lines hold a far inferior position in importance to the nation. He sees the time as near at hand in Germany when the automobile will cease to be looked upon as a luxury and will take its place as a necessity as in the United States.

It is a mistake to overestimate the importance of the airplane in its present state of development as a transportation factor, he declared. He pointed out that 80 cities are now appealing for regular airplane service when its only advantage is speed. Even this advantage is lost, he said, when intermediate landings or changes of planes are necessary, as would be needed should all these cities be linked by air routes.

Dr. Koch says automobiles will be increasingly used for longer hauls of passengers and freight, eventually making dangerous inroads into railroad income. The railroads, he said, loaded with the necessity of having to earn a large part of the reparations payments, will be unable to bear any further burden.

He is opposed to the socialist plan of relieving unemployment by construction of a series of canals in Germany to improve transportation facilities.

Pan-American Conference to Study Cars and Planes

WASHINGTON, Feb. 17—The Pan-American Union on Feb. 15 made public a tentative program for the third Pan-American commercial conference to be held in Washington, May 2 to 5 inclusive. The plans call for consideration of questions of mutual interest affecting the trade relations of the American republics and of methods for the elimination of obstacles standing in the way of normal development of that trade.

Since the last conferences in 1911 and 1919 two new factors have entered into the situation facing the conference: transportation by the motor vehicle and by airplane, the union announced.

Berlin Gets Electric Taxis

BERLIN, Jan. 26 (*by mail*)—A large taxicab company in Berlin has ordered 500 electric cars of new design. They will run at a cheaper tax even than the side-car outfits and other one-man taxis now in use. Thus Berlin will have five kinds of taxis with four different rates. There are still some old electric vehicles in use; they are, however, of ancient design and fast disappearing.

BELGIAN REPAIR TAX HARMS OLDER CARS

PARIS, Jan. 28 (*by mail*)—Opposition to automobile taxes which went into effect Jan. 1 is increasing in Belgium. Under this law the fixed annual registration fee is slightly decreased, but a 10 per cent tax is placed on tires, repair work, accessories and all garage charges. As the age of the car increases and repair work becomes more important, the taxation will be excessive.

The application of this law necessitates the stamping of all tires in the possession of automobile owners before the end of 1926. It is claimed that this is complicated and impracticable and will lead to disputes between motorists and tax collectors. Large numbers of automobile owners are laying up their cars as a protest against what they consider to be unjust taxation.

French Car Exports Gain 21 Per Cent

PARIS, Feb. 7 (*by mail*)—French automobile exports reached the record figures of 2,573,671,000 francs for the year 1926. In 1925 the value was 2,-118,243,000 francs. The detailed figures show that the value of passenger cars was 2,347,623,000 francs; trucks 218,778,000 francs, and bodies and accessories 7,270,000 francs.

The Belgian-Luxembourg Union heads the list of French clients with 8423 cars during 1926; Spain followed with 8379; Algeria 5730, and Great Britain 5461.

Automobile imports dropped from a value of 171,268,000 francs in 1925 to 158,370,000 francs in 1926. The drop is attributed to reduced Ford sales. Italy increased her exports to France by 100 per cent.

Paris Plans Truck Show

PARIS, Feb. 7 (*by mail*)—The Paris automobile show has been fixed for Oct. 6 to 16, in the Grand Palais. It will be limited to passenger cars, motorcycles, bicycles, tires, accessories, etc. As an experiment automobile trucks will not be admitted. The intention appears to be to hold a special commercial vehicle show in the same building early in the spring of 1928.

Argentine Sells 103 Makes

NEW YORK, Feb. 12—The Argentine now has 76 makes of passenger cars and 27 makes of trucks. Of the car makes, 45 are American, 9 French, 8 German, 8 Italian, 4 British, 1 Austrian and 1 Belgian. Fourteen makes of trucks are American, 5 German, 3 British, 2 Italian, 2 French and 1 Swiss.

Export Conditions Favor Truck Sale

War Vehicles Now Nearing Replacing — Plantations Seek Roads to Sea

NEW YORK, Feb. 12.—In many countries percentage gains in sales of motor trucks this year will exceed the rate of increase in motor cars, according to Walton Schmidt, field representative of the National Automobile Chamber of Commerce, who returned recently from a world trip and who left this week for a visit to the Middle West motor plants.

Numerically, of course, the passenger car will be the greatest part of the trade, Mr. Schmidt pointed out, but various factors favor bus and truck growth, as this field has hitherto been relatively neglected and hampered by a glutting of the market with left over army vehicles from the war period. He said:

"The motor truck is now just coming into its own. In several places the dealers handling assembled trucks claim that parts manufacturers are establishing service stations in their countries which are selling parts much cheaper than the dealer who must buy them through the manufacturer who makes the truck.

"In Java, Malaya, India and East and South Africa the plantation owners are demanding the building of roads which will enable them to bring the products of their great plantations down to the seacoast ports. Everywhere there is a great stimulus in road building and with the coming of better roads will come an increasing demand for motor trucks.

"At present the demand is for the lighter types, one-ton and one and one-half-ton because the flimsy bridges over many of the rivers will not hold heavy trucks and because of the bad condition of the roads during the rainy season."

South Africa Seeks Truck Bids

LONDON, Feb. 2 (*by mail*)—The South African Railways & Harbors are inviting tenders for one or more truck chassis, capacity 7000 lb., one or more truck chassis, capacity 8000 lb., one or more truck chassis, rigid six-wheel type, capacity 8000 lb. or more, and one or more truck chassis, tractor semi-trailer type.

Tenders must reach Johannesburg not later than March 17 next, and local representation is in practice essential.

J. N. Chamberlin

NEWARK, N. J., Feb. 12—Jeston N. Chamberlin, secretary of the Beckwith-Chandler Co., this city, died this week following an operation. He was 46 years old and had been connected with Beckwith-Chandler Co. 14 years.

Studebaker Shows Net of $13,042,119

Sales in 1926 Total 111,315 as Against 134,664 in 1925—Sees 1927 Better

SOUTH BEND, Feb. 14—The sixteenth annual report of the Studebaker Corp. shows total net sales for the year ending Dec. 31, 1926, amounting to $141,536,652 and net profits of $13,042,-119. Net sales and net profits in 1925 were $161,362,945 and $16,619,523 respectively. The net earnings were equal, after preferred dividends, to $6.67 a share on the 1,875,000 shares of common stock outstanding, as against $8.55 a share in 1925. The company sold 111,315 cars last year, against 134,664 in 1925.

Costs, depreciation and expenses in 1926 totaled $127,049,150, and income taxes in the United States and Canada were $1,807,781. The regular dividends of $5 on the common stock and 7 per cent on the preferred stock, amounting to $9,917,325, were paid during the year and the balance of the net profits, $3,124,794, was transferred to the surplus account. The latter, as of Dec. 31, 1926, stood at $36,533,833, including a special surplus of $6,075,000, against $33,409,038, including special surplus of $5,670,000 as of Dec. 31, 1925.

Current Assets $47,548,293

The consolidated balance sheet as of Dec. 31, 1926, shows net current assets of $47,548,293, against $52,152,131 as of Dec. 31, 1925. Current liabilities totaled $10,285,855, against $12,819,859. The current assets for 1926 include cash, $14,649,466; notes receivable, $1,-079,624; accounts receivable, $4,759,-955; inventories, $21,581,409, and sight drafts outstanding, $3,837,633.

"The extraordinary expenses incurred in moving the manufacturing and engineering departments from Detroit to South Bend, including the expenses of plant rearrangement resulting therefrom, and for the production of the Erskine Six, were charged against the profits of the last quarter," said A. R. Erskine, president of the corporation, in a message to shareholders. "Engineering expenditures for engines, chassis, bodies, development and test work for the Erskine Six and other disbursements were charged to reserve for future contingencies.

Open Model Sales Off

"The decline in our sales and profits of 1926 as compared with 1925, was due to a greater demand for cars of lower price than ours and to a slump in our sales of open models. We more than held our position in sales of the inclosed six-cylinder models, while our custom sedans and victorias have broken all of our sales records for these types. With these jobs and the Erskine Six in four models we enter 1927, our diamond jubilee year, in fine shape to make a record.

"While it now seems doubtful whether the automobile industry will show an increase this year, we feel that Studebaker is quite likely to do so because of its improved position. We believe 1927 will be the most prosperous year in our history."

In enumerating a series of events carried out for the improvement and expansion of the corporation's activities, Mr. Erskine pointed out that a new engineering and research laboratory was constructed at South Bend, at a cost of $434,330, and a proving ground laid out at a cost of $617,376. A large storage building was also built at South Bend with a capacity for 4500 cars.

CONTEST TO ROUSE INTEREST OF BOYS

SOUTH BEND, Feb. 14—A model making contest for boys, in which 108 prizes costing $2000 will be given for the best miniature models of the Studebaker custom sedan, has been announced by the Studebaker Corp. of America. The prizes include boat motors, radio sets, camping equipments and other items appealing to boys.

All models will first be entered in the local elimination contest in each city staged in the Studebaker dealer's salesroom. The winning models in each city or town will be sent to the territorial contest managers, of which there will be eight, for competition for 96 territorial prizes. The winners in each territory will then be sent to the general offices of the Studebaker corporation to be judged for the national prizes. Twelve grand prizes will be awarded the winners of the national contest.

Canada Tire Exports Gain

WASHINGTON, Feb. 17—Canadian exports of tire casings during December, 1926, showed an increase over the preceding month and were the second largest of any month during the past year, according to an announcement by the rubber division of the U. S. Department of Commerce.

The exports represented 128,347 units, valued at $1,375,319, as compared with 111,278 casings valued at $1,269,-385, in November. The unit value of December exports, however, was only $10.72, while the November unit value was $11.41.

Drop Centerless Grinders

DETROIT, Feb. 14—Detroit Machine Tool Co. has discontinued the manufacture and sale of centerless grinders. Reports to the effect that the Heim Grinder Co. or Cincinnati Grinders, Inc., has taken over the centerless grinder business of the Detroit Machine Tool Co. are reported unfounded by Cincinnati Grinders, Inc.

Higher Shipments Cut Tire Stocks

General Gains in All Classes Bring Inventory Totals to Lower Levels

NEW YORK, Feb. 15—Inventories of tubes and balloon tire casings showed a small reduction as of Jan. 1, 1927, according to the report of the Rubber Association of America, Inc. Production and shipments in December were considerably in excess of the November rate, the excess of shipments over production resulting in the inventory reductions.

Comparative figures for December and November, 1926, and for December, 1925, follow:

		Inventory	Production	Shipments
High Pressure Tubes				
Dec.	1926	8,016,198	2,517,035	2,468,262
Nov.	1926	8,068,230	2,355,665	1,790,429
Dec.	1925	6,489,331	3,814,617	2,603,165
Balloon Tubes				
Dec.	1926	4,133,865	1,440,646	1,628,872
Nov.	1926	4,384,791	1,283,455	1,243,944
Dec.	1925	not available.		
High Pressure Cord Casings				
Dec.	1926	4,047,557	1,857,821	1,861,272
Nov.	1926	4,003,724	1,694,257	1,399,176
Dec.	1925	3,723,296	1,876,401	1,265,593
Balloon Casings				
Dec.	1926	3,141,505	1,502,724	1,537,085
Nov.	1926	3,162,512	1,396,292	1,273,562
Dec.	1925	not available.		
Fabric Casings				
Dec.	1926	652,993	151,436	140,251
Nov.	1926	631,703	152,950	127,416
Dec.	1925	607,681	404,633	267,339
Solid and Cushion				
Dec.	1926	164,294	44,489	38,557
Nov.	1926	155,910	43,619	43,355
Dec.	1925	148,080	57,345	67,935

Falcon Production to Start in March

DETROIT, Feb. 14—Practical completion of the retail dealer organization in major distribution points is reported by John A. Nichols, Jr., president of Falcon Motors Corp., following private showings of the new car during the New York and Chicago shows. As a result production plans have been advanced and shipments in quantity will begin soon after March 15, Mr. Nichols said.

Orders from dealers indicate that the production capacity of the plant for the first year will be quickly absorbed, Mr. Nichols said. Initial distribution will cover most sections of the country with full facilities for service afforded buyers. A simultaneous showing of the car by all dealers will be staged as soon as cars can reach dealer points, according to the plans of the company.

Ford Liable for $362,946

DETROIT, Feb. 16—Ford Motor Co. has been ordered to pay $362,946 to the Parker Rust Proof Co., for unwarranted use of the Parker oxidation process, following trial of suit in Federal Court. Attorneys on both sides have been given 20 days to file exceptions. The Parker company had asked an award of $2,000,000.

Agencies Receive Harvard Awards

CAMBRIDGE, MASS., Feb. 16—O. C. Harn of the National Lead Co., was awarded the 1926 gold medal for distinguished personal service to advertising by the Harvard Advertising Awards. Barton, Durstine & Osborn, in association with General Electric Co. and Lord & Thomas and Logan, received the award for the national campaign of an institutional character deemed most conspicuous for its planning and execution.

Campbell-Ewald Co. was awarded $2000 and a certificate for the real estate campaign deemed the most excellent local campaign in cities or towns of over 100,000 population. A similar prize of $2000 and certificate, awarded for the first time, for the best industrial advertising campaign seeking publicity through the mediums of industrial, trade or professional journals, went to Rome Wire Co. and Moser & Cotins.

A $2000 cash prize and certificate was awarded Barton, Durstine & Osborn for advertising research.

Report Willys to Spend $1,500,000 on Coast Plant

SAN FRANCISCO, Feb. 14—Plans of Willys-Overland Co. are for a $1,500,000 assembly and manufacturing plant on the Pacific Coast, according to reports here following the recent visit of John N. Willys, president. In addition to attending several dealer conventions in coast states Mr. Willys inspected several plant sites and announcement of a selection is expected soon.

The purpose of the plant will be to assemble cars for the Pacific Coast market and also for shipment to the Orient and Australasia. Large freight savings will be made possible.

Bavaria Increases Cars

WASHINGTON, Feb. 15—The number of automotive vehicles in Bavaria increased by 41 per cent during the fiscal year ended June 30 last, according to a report made public this week by the U. S. Department of Commerce. The number of automotive vehicles registered July 1, 1925, was 47,645 and on July 1 last there were in operation in Bavaria 36,239 motorcycles, 19,188 automobiles, 9995 motor trucks, 672 buses, 140 fire trucks and 35 motorized street sprinklers.

Original Research Need Indicated by S.A.E. Head

PHILADELPHIA, Feb. 16—The importance of research was emphasized by J. H. Hunt last night in his talk before the Pennsylvania Section of the Society of Automotive Engineers. That part of research which is engaged in discovering new combinations and new applications of known scientific facts is well organized in industry, Mr. Hunt said, but there is need for more research in quite unknown fields.

It commonly has been thought, Mr. Hunt said, that this part of research is the work of the universities, but due to the lack of compensation too many men competent to carry on pure research work are being lured into industry where they are engaged in planned experimentation. This work is extremely important, Mr. Hunt said, and some method should be found of providing for more experimentation in hitherto unknown fields.

Upward of 100 members attended.

British Plane Exports Fail

LONDON, Feb. 5 (*by mail*)—The value of British aircraft exports again fell slightly as compared with the previous year. In 1924 the total was £1,211,678; in 1925, £1,151,010; and in 1926, £1,123,166.

Aircraft imports increased from £10,542 in 1925 to £74,503 last year.

To Hold Budapest Show

LONDON, Feb. 5 (*by mail*)—A Hungarian motor show will be held at Budapest from June 4 to 15. The Automobile Club of Latvia is organizing an international show, which will be held at Riga from April 10 to 17.

Seek Maker Entry for Schneider Cup

WASHINGTON, Feb. 16.—An open invitation to motor and aircraft manufacturers to enter, in the name of the United States, a plane in the Schneider International Seaplane Race, was issued this week by Porter Adams, president of the National Aeronautical Association. The entry must be made on or before March 1, in order for this country to participate.

Unless the United States enters a plane by that date its opportunity of competing for permanent possession of the trophy this year is lost and next year will offer the last chance for this country to capture the coveted international aviation honor under the "three victories in five contests" feature of the regulations.

Mr. Adams' invitation to the motor and aircraft manufacturers to supply the plane "to save the honor of American aviation," was made following the Navy Department's announcement that because of Congress' failure to supply the necessary funds, the Navy would not have an entry.

Machine Tool Association Gets Cleveland Show Date

CLEVELAND, Feb. 14—The national machine tool builders' exposition held under the auspices of the National Machine Tool Builders' Association, will be held here Sept. 19 to 23 in the new west annex of the Public Auditorium. Attendance will be confined to specifiers, buyers, users and technicians. J. Wallace Carrel, of the Lodge & Shipley Machine Tool Co., is chairman of the committee on exposition of the association.

Air Routes Use 1200 Planes

WASHINGTON, Feb. 15—During 1926 American airplane manufacturers constructed 636 airplanes of modern design for commercial purposes, it was announced here by the U. S. Department of Commerce. At the close of the year there were 1200 modern type airplanes in commercial use in this country.

Calendar of Coming Events

SHOWS

Barcelona ..... April 27-May 8
Boston ..... March 5-12
Mechanics Bldg., Special Shop Equipment Exhibit.
Cairo ..... Feb. 15-March 15
First International Motor Show.
Cleveland ..... Sept. 19-23
Exposition, Public Auditorium, National Machine Tool Builders' Ass'n.
Cleveland ..... Oct. 3-7
Exhibition, Public Auditorium, American Electric Railway Ass'n.
Cologne ..... May 20-31
International Commercial Transport Exhibition.
Copenhagen ..... Feb. 18-27
Danish Automobile Exposition.
Geneva ..... March 4-13
Palais des Expositions.
New Haven, Conn. ..... Sept. 6-9
Machine Tool Exhibition.

CONVENTIONS

American Electric Railway Association, Public Auditorium, Cleveland .. Oct. 3-7
American Welding Society, Engineering Societies Bldg., New York City ..... April 27-29
Automotive Equipment Association Summer Convention, Multnomah Hotel, Portland, Ore. ... June 27-July 2
National Association of Automobile Show and Association Managers, Drake Hotel, Chicago ..... July 26-27
National Battery Manufacturers Association, Benjamin Franklin Hotel, Philadelphia ..... March 10-11
National Foreign Trade Council, Detroit ..... May 25-27
National Safety Council, Mid-West Safety Congress, Hotel La Salle, Chicago ..... Feb. 21

S. A. E.

Dayton, March 1—Dinner and meeting jointly with Engineers' Club—J. H. Hunt, speaker.
French Lick Springs, Ind., May 25-28—Summer Meeting.

RACES

Abilene, Texas ..... July 4
Altoona, Pa. ..... June 11
Altoona, Pa. ..... Sept. 5
Atlantic City ..... April 30
Atlantic City ..... Sept. 24
Charlotte, N. C. ..... May 9
Charlotte, N. C. ..... Nov. 11
Detroit ..... Sept. 10
Fresno, Cal. ..... April 21
Indianapolis ..... May 30
Los Angeles ..... Feb. 22
Los Angeles ..... April 10
Los Angeles ..... Nov. 27
Salem, N. H. ..... June 25
Salem, N. H. ..... Oct. 12
Syracuse, N. Y. ..... Aug. 27